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Progress With Bee Disease

By Frank C. Pellett,
Field Editor.

Frank always did say what he thinks on this subject. He is a staunch advocate of education and experiment in disease control, and since his Iowa law has been a model for this approach let us listen to him.



Photo by Dr. O. W. Park, Ames, Iowa.

THE control of bee disease is an old old problem, but unmindful of the results of work in similar fields, we make no new approach to its solution. Whenever a problem is approached through legal enactment it is difficult to change our tactics. The tendency is to renew appropriations year after year and continue the same line of attack regardless of results.

The only disease among bees which has continued as a major problem for a long period is American foulbrood, a disease of the young bee in the larval stage. While we boast of progress in our methods and equipment, but little progress has been made in dealing with this disorder since the time of the ancients. Treatment is simply a matter of sanitation. The only remedy we know is to remove the bees from all contact with anything having to do with the contagion.

In 1568, a book was published in Europe by Nickel Jacob in which he advised that the bees be removed from the hive, all honey and comb cut out and the bees shut up for three days to starve them. After the elapse of this time the bees were to be placed in a new and clean hive and returned to the former position. Careful beekeepers have thus been able to rid

their bees of this brood disease for more than three hundred years.

Never, however, has any means been found of completely eradicating the disorder from a large area and preventing its return. The disease was early introduced into this country and has gradually spread into nearly every section where beekeeping is important. As soon as honey production began to assume commercial importance beekeepers sought for state assistance in disease control. The first bee-disease law of state wide application was by Michigan in 1881. The statute made it unlawful to keep any colony of bees affected with foulbrood and provided that such diseased colonies must at once be burned or buried in the ground. A similar act had been in force in San Bernardino County, California, since 1877.

It is interesting to note that these acts were passed before bee diseases were widely distributed and that no provision was made for treatment of diseased colonies. The intention was to destroy the disease completely upon its first appearance. It appears quite probable that at the time, an aggressive campaign might have resulted in complete eradication over considerable areas, but the fact that

it was present in such widely separated localities as Michigan and California precluded complete success.

In 1891, the Province of Ontario, in Canada, passed an act for the suppression of bee diseases, but instead of requiring that all diseased colonies be burned the inspector revived the ancient treatment of removing the bees from the source of contagion and placing them in clean quarters. Wisconsin soon followed the example of Ontario and since that time, one state after another has joined the procession until most of the states now have such laws.

In spite of the great effort of conscientious inspectors and the expenditure of large sums of money, this disorder has continued to spread until there is now no large area, where beekeeping is important, that is free from disease. The agitation among beekeepers and the resulting publicity, has done much damage to the honey markets in some instances through giving the consumers the erroneous impression that there was danger from the consumption of the honey. Fortunately there is no danger whatever to the human consumer of the honey from hives where disease happens to be present.

The writer happened to be appointed to the office as the first State Apiarist of Iowa and was among those who argued for liberal appropriations of public funds to stamp out the bee diseases. After five years of effort, however, the futility of such efforts became apparent. While such expenditure might be justified for the temporary benefits, no promise could be held out for eradication of disease by such methods. When retiring from office in 1917, the recommendation was made that a radical change be made in the work, but the beekeepers were not ready to listen to any such recommendation.

Instead, the popular demand was for more money to hire more inspectors to burn all the diseased bees. This trend became more pronounced each year and a general campaign for larger appropriations was waged with the meeting of the legislatures of more and more of the states. As a result, some very large appropriations were secured and some very drastic action was taken. In some cases whole apiaries were burned, together with the new crop of honey still on the hives and all equipment. Such action could only be justified in the assumption that the disease could be completely eradicated.

After a lapse of seventeen years, I feel that my position in recommending a change of policy has been justified. A few days since, the official in charge of disease control in one of the states having expended large sums, admitted to me that bee disease is present in nearly every township in his state.

With such a record after a half century of effort, is there not reason to look in a new direction for relief? It may be well to recall that in the nineties there was a serious outbreak of a disease among adult bees which was commonly called "paralysis." The beekeeper knew but little about it and there was no official control which was general at that time. O. O. Poppleton, of Florida, who kept bees on an extensive scale at that time suffered seriously from its ravages and kept the bee men informed as to his experience through the bee magazines. He among others tried all possible remedies which were suggested. The disease was wide spread for several years until someone discovered a strain of bees which was partially immune to its effects. Requeening with this stock became general and in a surprisingly short time the disease ceased to be a menace.

Likewise a little later there was a period when European foulbrood, another brood disease, became serious. Whole apiaries were wiped out within a few weeks and the total losses were enormous. In some states inspectors began burning all colonies affected with this disease, and the losses were thus greatly increased,

since equipment as well as bees were destroyed.

When it was discovered that certain strains of Italian bees were immune to this disease, it was but a few years until inspectors no longer bothered about it. They simply advised beekeepers to get the immune bees. It now seldom appears as a serious menace to beekeepers anywhere in America.

In view of the success with two other serious bee diseases through breeding resistant bees, one would expect that the same method would long ago have been used to combat our oldest and most serious disorder. Authority, however, has continued to teach that a colony once affected with American foulbrood can never overcome it unaided. The general policy of burning diseased colonies has served to destroy those colonies which were developing resistance and which might have been saved for breeding stock.

Many years ago I was shown a

colony, in the apiary of one of America's most successful honey producers, which had completely recovered from this disease without assistance. Numerous similar cases have been reported. Such isolated cases demonstrate the possibility of complete success if proper attention is given to the attempt to breed a resistant strain of bees.

While it may be necessary to continue established methods of inspection for the purpose of keeping disease in check until success is obtained, fifty years of effort ought to be sufficient to convince the most doubtful that never can we hope to eliminate bee diseases through such efforts alone.

The means by which paralysis and European foulbrood have been conquered also offer promise of success for the other. The sooner the work of breeding disease-resistant bees, to combat American foulbrood, is started, the sooner we will be free from the trouble that it now causes.

Death of E. L. Hofmann



E. L. HOFMANN
Janesville, Minnesota

ON Friday, the 13th of July, E. L. Hofmann, one of Minnesota's most prominent bee men passed to the great beyond. His death followed an operation. Hofmann was born on May 1, 1875, on the same farm where he lived until his last illness. He is survived by his wife and by two children; a daughter, Gretchen, of Minneapolis, and by a son, Charles, who lives on the home place.

Mr. Hofmann, well known in the honey producing industry, had a very up-to-date outfit and an extensive business. His honey house and equipment attracted wide attention as a model of its kind.

It was eighteen years ago when the writer first met Mr. Hofmann. At that time he had more than nine hundred colonies of bees which he managed along with a hundred acre farm.

Everything was in the best possible condition. Buildings and hives were well painted, grass was cut, all equipment in place and everything as neat as the kitchen of a Dutch housewife. He had worked out a system by which he was able to care for more colonies than most beekeepers with an equal amount of help.

Accounts of Hofmann methods and management are to be found in the American Bee Journal for August, 1916; March, 1925; April, 1925; November, 1928; and April, 1932.

Recently Mr. Hofmann's health had suffered through anxiety over financial matters but his friends were unprepared for the announcement of his death. He died firm in the belief that death is but a door opening on a wider and better life.—F. C. P.



Comb Honey Production Costs

By Chas. Kruse,
Illinois.

Kruse here, following his previous articles on management for comb honey, goes into the costs, taken from records covering three periods in a long experience. Comparisons are invited. This title picture is of the author's home.

THESE figures are based on 23 years' experience. The cost of producing section honey is 5½ cents or \$1.38 per case of 24 sections delivered to the buyer packed in double deck glass front cases. If cellophane is used, the cost is \$1.62 per case.

These figures from actual experience do not include labor in a one man outfit of 200 colonies. To get the cost, all expenses were carefully compiled including depreciation, operating cost of trucks, machinery and actual equipment. When labor is hired in large outfits the cost per section, without cellophane, will be near 8½ cents delivered.

In the first twelve years the bees averaged 73 sections per colony per year. The gross returns were \$13.33 per colony, in the period from 1911 to 1922. The poorest season was 1914 when the bees averaged 26 sections with a gross return of \$3.71½ per colony. The best year in production per colony was 1916 with 154½ sections to the colony; with gross returns of \$20.33 per colony. 1922 was the best year in gross returns with 105 sections per colony, gross returns \$23.88.

During the next 11 years, the average per colony production was 79 sections with a gross of \$15.54. The poorest season, 1925, showed a gross return of 71½ cents per colony. The best season in this 11 year period was 1927 with 172 sections per colony with gross returns of \$32.12.

The first 12 year average shows gross receipts per colony of \$13.33; the per colony cost \$4.19%. Net per colony \$9.14%.

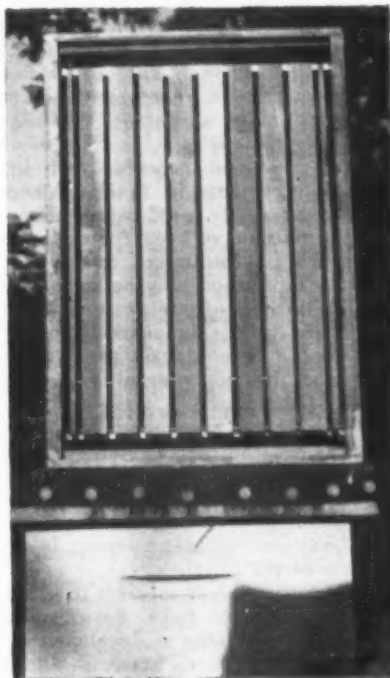
The second 11 year average shows a gross receipt per colony of \$15.54; cost per colony \$4.50½; net profit of \$11.03½.

The last 11 year average shows a better profit than the first twelve years.

Will beekeepers continue to use poor equipment? Are we afraid to make adequate investment in order to show a net return of \$11.03½ per colony? I know of no one man business that will do better. To be sure we can't get rich on this but think

of the liberty we have in beekeeping; a life in the open where one can assert his character and be as free as it is possible.

To one that loves freedom, beekeeping offers all there is to be had. No, we don't rank high in the measure of men; beekeeping belongs to mediocrity but it is a happy life. We don't know the value of a thing until we



The Kruse ventilated hive with two division boards. Note the ventilated ends.

try to create it with our own hands. For instance, a small set of rolls for making foundation costs above \$2,000.00. Did you ever try to make a complete hive, milled within 1/32 of an inch for bee space? Try these things and then you will know how much it costs and the skill required to produce it.

A 200 colony one man outfit with an extra set of combs with eight supers per colony, a truck and all necessary equipment based on a forced sale in 1934 would be \$3,350.

There was a time when an outfit like this was worth \$7,000 but not now.

The next three years will tell whether we shall continue to keep bees. The 1932 and 1933 crops were sold on an average of \$2.40 per case delivered. With a 79 section average at \$2.40 per case, the total is \$780. The cost during 1931 and 1932 at \$4.50 per colony leaves a balance of \$3.30 or a net profit in those years on 200 colonies of \$660.00.

Bee supplies are up 15 per cent so our cost will be higher in 1934. What will we do? Quit comb honey production and go to producing extracted honey? I do not think so.

In extracted honey, we must handle twice the tonnage at added cost; even though we produce twice as much per colony, our relative cost is higher on account of the double tonnage. If the trend of the market continues in



The Home Yard, used this season for drawing new brood combs.

favor of extracted honey, removing comb honey from the market, we will be forced into the production of it or we will quit the business and go to something else.

Is it true that there is a concerted action among buyers to remove comb honey from the market? Will comb honey men change to producing extracted honey? Will extracted honey continue selling at the price of sugar?

In the days before prohibition, comb honey was selling by the jobber at \$2.75 to \$3.25 per case delivered. Since the repeal of the 18th Amendment, we find candy consumption lower. Will the consumption of honey increase?

At present prices, yes. Because it is a natural sweet of highest quality. One man's guess is as good as another as to the future of comb honey. In 1914 No. 1 sections were selling for \$3.80 per thousand. A good shipping case with glass front could be bought for 16 cents. Freight rates were lower, also taxes, but that is all changed now.

Can we reduce the cost of comb honey? It is doubtful. Most large operators have excellent equipment and all the machinery needed to produce a crop of comb honey and have cut the costs to the bone. The lower the cost, the lower the price. Good white extracted honey sold in 1927 in Siberia for 6 to 7 cents per pound retail. Now the Russian government has changed all that.

Is it possible we are wasting time producing comb honey? Will new discoveries be made in processing extracted honey? How little beekeepers know of the chemical contents of honey and its possibilities. Some day we will organize and have a laboratory with a staff of chemists for research and new uses for honey. We then will consult our best beekeepers on the methods of bee behavior, on hive construction and ventilation.

The history of beekeeping is nothing more than philology; what is of value will remain to bless future beekeepers. Most of the talking has been done by men that are not beekeepers.

What is a beekeeper? A man that produces crops of honey, marketable at a profit under a profit system. Good press agents are seldom good beekeepers.

We should have a standard of perfection known all over the world. The buyer should be protected whether he be in Tokio or New York. Rejection of a shipment adds to the cost of production.

I appeal to comb honey producers to pack a fine article, to set a perfection that will protect the buyer and the consumer and lower the costs of production. If we would set the same standard of perfection as the foundation and section manufacturers, most of our costs of production would be solved. We invite honest differences of opinion.

Let's Overcome This Problem

By Frederick Garman,
Pennsylvania.

The study of chemical and bacteriological problems must revert in the end to the laboratory where controlled conditions make it possible to discover facts which could hardly be brought to light elsewhere. The work along this line that has been done on foulbrood to date would bear summarizing.

Many questions suggest themselves about this disease. In what media does the germ grow artificially? What stain does it take? Is it a spore former or is it a ferment like that which infect the silkworms of southern France? What degree of heat will kill the pure cultures? Does the germ attack the skin, blood, or internal organs of the larvae? How about treating with live steam as described by Frank Beach in June?

I am safe in saying that every problem in beekeeping has been overcome except this one. The Dadant hive to my notion is the best yet devised, the Langstroth can be made to work but many are the enthusiasts using either system who are wiped out almost as soon as they have learned the technique and art of beekeeping.

How true and forceful are Dr. Miller's arguments in favor of beekeeping as a life profession. However, he must have been fortunate in living where foulbrood was under control. Foulbrood may be solved by burning in some of our western states which are relatively scarcely populated and it is obviously the easiest thing for the inadequate inspection forces of the East.

Where there are many wild bee trees as in the Apalachian region, where towns are close together as they are in the East and town dumps all too common (where infected material may be found), burning is no solution of the problem.

Would it not be of interest to know whether attempts have been made with artificial mating as developed by Dr. Watson to create a strain which will resist the disease? How about inoculating the queen by injecting a serum into the veins of the wing? Let us have more study on this subject.

A Coffee Honey?

I read with interest the article "A Coffee Honey" on page 275 of the June issue. I spent fourteen years in Porto Rico which, according to France and Spain, is the source of the finest coffee beans in the world. I had apiaries located near coffee groves. The Guatemalan coffee plants must bloom differently from those in

Porto Rico. They are planted in the hills from five hundred to three thousand feet above sea level.

In Porto Rico the coffee throws a flush of bloom several times a year. They all bloom at once and the blooming period is not over three days. I fail to see how the bees could gather a crop of honey in this time.

All coffee plantations in Porto Rico are shaded by big tall trees all of which without exception yield honey. The guava, guama and mocha trees are extensively planted for this purpose and all of them yield honey several times a year. Their period of bloom is frequently a month or more.

During the war I tried selling the tropical honey in Dayton, Ohio, and sold considerable and still have some demand for it. However, 95 out of 100 people prefer good clover honey to any of the darker or stronger or wilder flavored grades.

Penn G. Snyder,
Ohio.

Our Cover Picture

This month we are devoting our cover space to a picture of the Mississippi River dam and power house which are but a short distance from the office of the American Bee Journal. At the time the dam was completed in 1912 it was widely heralded as the biggest power dam in the world but larger ones have been constructed since that time.

Visiting engineers come from all parts of the world to visit the power plant which generates electricity for the city of St. Louis as well as for many nearby cities like Burlington, Keokuk, etc.

The original Dadant apiary where Charles Dadant kept bees during his lifetime and where his son and grandsons have since followed in his footsteps, is located within about two miles from the east end of the big dam. In the old days outapiaries in the Mississippi River bottoms harvested dependable crops from fall flowers, but of late the drainage of this area has spoiled the best of the bee pasture and the location is no longer a desirable one for honey production.

What Is the Best Age for Queen Acceptance?

By Harrison Moore,
California.

During the orange flow this last spring, I had twenty full-sized hives divided into two and three compartments for queen raising. At the close of the flow, with scarcely any honey coming in, I decided to turn these nuclei into single colonies to be built up for next year. Fourteen of these hives had old queens saved while requeening, one was queenless, and five had young queens just beginning

to lay. I took out all but one queen in each hive and removed the division boards. To the queenless colony I gave an old queen, simply letting her run in at the entrance. Two days later sixteen of these colonies were queenright, including the one given the old queen at the entrance, but four of the young queens were being balled. This experience has raised this question in my mind: How old must a queen be before she will be accepted in this manner?

From time to time I have attempted queen introduction by giving the young queen uncaged between two frames of brood and bees, as suggested by Doolittle and others, only to have too many failures. Were these failures due to the fact that I gave the young queens too soon after they began to lay? If so, how old must a queen be before success can be had with this method? Perhaps some reader of the Journal can answer these questions for me.

In Defense of the Producer Packer of Honey

By W. T. Brand,
Nebraska.

On page 97 under the heading of "Shall the Producer Pack His Own Honey" you say that "Honey that brings 5c in carlots must retail at 15c or 20c to cover these added expenses."

I produce around 100,000 pounds, and some years sell about 200,000 so I believe that I can qualify as a producer-packer of honey. I would like to give you some figures to show you that the producer should pack his own honey.

When I extract honey it goes from the extractor through the process to the tank with very little attention or expense, and as we can fill fifty five-pound pails in four minutes and twenty seconds it does not cost much more to put it in pails than it would to run it into sixty-pound cans. We can fill pint jars at the rate of one dozen per minute, so the cost of filling them is a very small item. Labeling is such a small job that it is not worth mentioning.

Now about working sixty-pound cans of candied honey, it takes about twelve man hours at 35c per hour to liquefy 100 sixty-pound cans, run it into pails, label it, pile it up, wash and repack the sixty-pound cans in the cases; eight to twelve gallons of distillate at 5c per gallon to furnish the heat; about 4 k. w. electric current at 4c per k. w. to operate the automatic equipment; about 10c for the homemade paste. I cannot figure my average label expense as quite a few buyers furnish their own labels.

My pail filler puts five pounds and five pounds only in a five-pound pail. I have had packers tell me that they cannot get twelve five-pound pails

Watering Device for Bees

By Benj. Nielsen,
Nebraska.



To assure a supply of water, it is not necessary to buy expensive materials or equipment. Any tank or large container may be used in making a watering device like that in the picture. A steel oil barrel, gasoline drum, or old hot water tank.

The spigot is adjusted to drop water slowly on the inclined drip board. The drip board is fitted with cleats to distribute the water. To prevent warping, one should first give it a liberal coating of beeswax. If this precaution is omitted the cleats should be fastened on with screws.

Just inside the lid on the tank, the wire screen is attached through which the water is poured to clean out dirt and foreign matter that might clog the spigot. If an open tank is used, burlap tied securely in place may serve as a cover and screen.

An old hot water tank may be used if it is supported in a slanting position and the holes at both ends are plugged. A spigot may be fitted at one end. Even a slotted plug may be used at one end to drop water slowly on the drip board.

from a sixty-pound can. When I cannot get twelve hundred five-pound pails out of a hundred sixty-pound cans I find out why, and the packer that does not get at least that much should have his head examined.

I get about 55c per case for the well washed sixty-pound cans to help defray the expenses. I do not have to buy cases for the honey as they take it away in the cartons that the pails came in. I get fifty-four pails into a case.

Now the average honey packer burns all of the flavor out of the honey, and the wax and dirt in, and when he gets through with it, it is hardly fit to eat. I have run honey through my outfit that was "processed" enough to stand up for two years, that graded W.W.6 (after be-

ing processed) it still had a palatable flavor.

One hears a lot about honey giving some people the cramps (pollen poisoning). By removing a part of the pollen grains from the honey before heating I have eliminated this trouble. Now really, have I not an economical right to package honey.

Now I will admit that there is a lot of sloppy producer-packers of honey that do the industry a lot of harm but there are also a lot of professional honey packers that should be locked up out of the way, and then why should the bird in the swivel chair get two-thirds of the honey dollar and we poor devils work like the dickens in the hot sun all summer long for the other third. We have two dollars invested to their one. Let the packer scrap his useless, but beautiful equipment, and come down to earth on his costs and he will get all of the honey that he can handle.

I know of two beekeepers that live about fifteen miles of each other. One ran his honey into sixty-pound cans and sold it at his door for 5c, the other packed his in five-pound pails and hauled some of them as far as 400 miles and sold them as cheap as 22c each. But give him time, if he lives long enough he will learn.

The Hawkweed for Honey

Mr. Elmer Karvel, of Merrill, Wisconsin, sends a sample of a plant on which his bees were working in late June. It proved to be the Orange Hawkweed (*Hieracium aurantiacum*).

Mr. Karvel writes as follows about this plant:

"When I approach the field the odor can be distinguished five or six rods away. The plant covers about an acre of a neighbor's run out hay field. It grows on clay or sand loam soil. They seem to spread more every year. My bees quit carrying honey from clover when this plant comes into bloom."

Those who have either the second or third editions of the book, "American Honey Plants" will find this plant described there. It is very common in the eastern states and eastern Canada. There it is not regarded as an important honey plant although under favorable conditions it does yield some nectar. It is only an occasional season when conditions are such that the Hawkweed yields nectar freely.

The Hawkweed, also called paintbrush, missionary weed, red daisy, etc., was cultivated as an ornamental plant in Maine about sixty years ago. It soon escaped and has since continued to spread as a weed through New England, then New York and of late westward as far as Iowa. Perhaps it may prove to be a better honey plant in the West than it has been in New England. F. C. P.

How One Baker Advertises Honey

By S. F. Haxton,
Pennsylvania.

*There's no other
bread like it!*



No other bread can you get that entirely different appetizing flavor... that rich goodness! Honey-V is baked from a blend of natural flours and only the finest U. S. Fancy

honey is used for sweetening. Sliced and "oven fresh" in Cellophane, it stands out entirely in a class by itself. That's why there's no other bread like it! Huber's Honey-V Bread is the first new loaf in a generation.

*and there's no other
honey like it!*



RICH... MELLOW... DELICIOUS
The sweet of a thousand uses... ideal for children and grown-ups alike. Try Huber's Honey and see how remarkably good it is.

U. S. FANCY.

**HUBER'S
HONEY**

Now Obtainable

at your dealers in attractive
one pound jars

It's the same fine honey which is used exclusively
in Huber's Honey-V Bread.

* "U. S. FANCY" is the mark of the highest rating given honey by the U. S. Department of Agriculture—in short, the sign of the finest you can buy.

. *At Your Dealer's*

One of the advertisements appearing for Huber's Honey-V bread and for Huber's Honey.

This is a real ad and in quarter page newspaper space should command attention.

WHEN a baker buys U. S. fancy, white clover honey in carload lots and uses more than a hundred tons of it a year in making bread, **that's news.** When a baker spends thousands of dollars to advertise honey in newspapers, on billboards and by word-of-mouth to scores of aggressive salesmen, **that's news.**

When a baker, by making a distinctive loaf of bread with wonderful keeping qualities, sweetened with honey entirely, meets the public's taste so well that he doubles and triples his sales and thousands of housewives insist on his bread, **that's news—and an example for other bakers.**

George F. Huber, of Wilmington, Delaware, has done just that. He is doing more to promote the use of honey than any beekeeper in the East. The great Swiss naturalist, Francois Huber, must have a worthy relative in the American Huber.

Last winter there appeared in the Philadelphia stores a new 11-cent loaf of sliced bread of distinctive appearance—the most beautiful loaf in the stores. It was wrapped in cellophane. Around the center, under the cellophane, it bore a striking label of yellow, red and black, on a white band reading "Huber's Honey-V Bread," the word "Honey" dominating the label. Underneath this was the explanation "Only the Finest Honey Used for Sweetening!" One really would have to see the bread to realize how attractive it is and how it stands out in the grocery stores. On appearance it deserved patronage.

But people don't buy bread for appearance. They buy it to eat. Grocers were asked how the loaf was selling. "Splendidly," said one. "It has made the biggest hit of any new bread we ever had."

Another said that Honey-V Bread "repeated" wonderfully well, those who tried it buying it again and again and seemingly not tiring of it, whereas they frequently changed from one loaf of bread to another before tasting Honey-V. In every store this bread occupied a preferred position which only best sellers can have.

Grocers were glad to call Honey-V Bread to the attention of customers. "It's sweetened with honey," they said—and that made the sale. Hundreds of stores in Philadelphia are featuring it. They are glad to do this because of the quality of the loaf—it is different and better. I don't know Mr. Huber, never saw nor talked to him, but I know from my own

use of it that Honey-V Bread is remarkably good. It is not a white bread, neither a whole wheat or graham but seems to be somewhere between. The color is light, a sort of ecru, and the texture is as fine as white bread. The flavor is distinctive and makes one want more.

I wrote to Mr. Huber, President of the Huber Baking Company, of Wilmington, Delaware, telling him I liked Honey-V Bread and he replied as follows:

"I certainly appreciate your letter and I am glad you like Honey-V Bread. This has been and is one of the most successful loaves we have ever made. As stated in our advertising, only the finest clover honey is used for sweetening. We use nothing but white clover honey which we buy in carlots. This loaf sells at the same price as regular white bread although it does not weigh quite as much. We are also marketing this same honey in one-pound jars. I enclose a picture of the bread and the jar. We have had many compliments about Honey-V Bread and many people tell us that it is the finest bread they have eaten."

While Huber's Honey-V Bread became an important competitor in Philadelphia, only in the last year, it has been the leader in Wilmington for many months. To promote its popularity, Mr. Huber has advertised it in the Wilmington newspaper, using a big ad—from a quarter to a half page—to point out that "There is no other bread like it." In one of the advertisements, the maker says:

"In no other bread can you get that entirely different appetizing flavor . . . that rich goodness. Honey-V is baked from a blend of natural flours and only the finest U. S. Fancy Honey is used for sweetening. Sliced and 'oven-fresh' in cellophane, it stands out entirely in a class by itself. That's why there is no other bread like it. Huber's Honey-V Bread is the first new loaf in a generation."

Then the Huber Baking Company devotes the lower half of its advertisement to Huber's Honey, "now obtainable at your dealer's in attractive one-pound jars. It's the same honey used exclusively in Huber's Honey-V Bread."

Featuring the honey in the glass jar with the loaf of bread in cellophane is a natural combination, but as the Huber Baking Company's principal business is baking, it is obvious that sales of honey are a by-product of the bread advertising and merchandising.

The honey is placed in the stores by the same men who deliver the bread. These men, calling daily, are able to watch the retailer's stock of honey and see that he always has Huber's in stock and on display, instead of being on a shelf toward the back of the store where only those who come in especially to search for honey will buy it. Mr. Huber's driver-

salesmen place two jars on a golden pedestal and then put that pedestal right on the counter.

The jar that Mr. Huber uses is unique in that it carries no label. Instead the brand name and "U. S. Fancy—the very finest honey" are lithographed right on the metal cap of a wide-mouthed jar. Pasted to the bottom of the jar so that it may be removed easily by the purchaser is an attractive 12-page booklet, telling the consumer of the health value of honey and giving recipes. After stating why honey is good for the system, the booklet gives these practical suggestions:

"A teaspoonful of honey spread on one's breakfast toast aids the normal functions of the digestive organs. A spoonful of honey in a glass of warm milk at bedtime is particularly soothing and brings deep, restful sleep. In the treatment of sore throats and colds, honey combined with lemon or grapefruit juice, soothes the membranes of the throat and relieves irritation."

To lead to greater appreciation of honey, the booklet states that "Each teaspoonful of Huber's honey represents the nectar gathered by approximately 500 bees from 50,000 blossoms."

It is suggested that the glass jar be used as a flower bowl. The recipes given include honied grapefruit, fruit salads, and ice cream. The housewife also is told how to make honey date bars, sandwich fillings, waffles, baked apples, and so on.

Uruguay Needs Bee Specialists

M. Rivera of Uruguay, South American republic, is in the United States making arrangements for the launching of a beekeeping project in his country.

He is desirous of obtaining the services of a number of young men well versed in apiculture who may be willing to live in Uruguay at least long enough to assist in the establishment of the industry in that country.

The address of Mr. Rivera is Consulate of Uruguay, San Francisco, California. Anyone interested should write there.

Fat and Lean Together

In this locality we are having spotted conditions for this season. With yards separated less than ten miles, one may be roaring with honey while the other is only about fed up for winter. There have been only a few light showers since early spring and bees seemingly follow the same paths. Cattle are starving.

J. H. Sturdevant,
Nebraska.

Death of J. W. Bittenbender

We regret to advise our readers of the death of that pioneer beekeeper, J. W. Bittenbender, which occurred at Knoxville, Iowa, on July 10.

Mr. Bittenbender was eighty years of age when death occurred. He was an old time beekeeper and a friend of the Dadants for over fifty years. Well known throughout Iowa as a beekeeper and an exhibitor who took his share of blue ribbons at the fairs. Mr. Bittenbender will be very much missed by the beekeeping industry of Iowa as well as that of the nation.

Our sympathy goes to the widow and the children.

Handicapped by physical disability since youth, Mr. Bittenbender was a staunch, hard worker who was all the more to be admired because he had overcome such handicaps and become a successful business man and beekeeper.

Optimists

Who says beekeepers are not optimists? Look at the front cover of the April issue and see what an alluring spot for the beekeeper there is portrayed. It represents a barren pile of rocks without a leaf or a blade of vegetation, washed by the salt water of the great Atlantic, and in the description of "Our Cover Picture" on page 146 this is said to be "typical of the New England sea coast."

"It is in this region that much of the early work with honey bees was done. The town of Newbury was settled in 1635, and five years later a town apiary was established. This town apiary was placed in charge of John Eels, who later became the first dependent upon public charity." That was a fine start for the poor beekeeper!

On page 145, "Famous Sayings," many nice things are told about that famous pioneer, L. L. Langstroth. In the last paragraph of the prize winner's article C. F. Strahan says, "While he (Langstroth) sowed, others reaped. When he died he **did not have a dollar.**" In the next sketch L. C. Logan says, "Mr. Langstroth at the time of his death **was destitute.** The seeds that he sowed we are reaping now."

And who will dare to say that these cheerful words do not well describe many a modern brother in the gloriously interesting game of watching "the bees do the work" while the beekeeper gets the honey?

Well, keep believing and cheer up, ye optimists. The bees make one feel that way, so, as is suggested at the top of page 138, "**Stay with the bees for success.**"

J. B. Stuyvesant,
California.



EDITORIAL

AMERICAN BEE JOURNAL



The Disease Menace

We would call attention to the article dealing with "Progress with Bee Disease" elsewhere in this issue. Is it not time to realize that some other method must be found to control bee disease? Large appropriations are necessary to keep foulbrood in control but no progress is being made toward a permanent solution of the problem.

Let all beekeeping interests unite in an effort to secure sufficient funds for the bee culture office in Washington to undertake a serious study of the problem. Let them seek a disease resistant strain of bees and at the same time let them investigate any other method of control which offers promise. This should not interfere in any way with the present disease control efforts of the states but on the contrary should receive the best of cooperation from them all.

There is a solution for every problem if it can be found and foulbrood can be conquered if we attack it seriously. It will take time and it will take some money but the amount needed will be extremely small in comparison to the losses at present suffered by the industry.

The honey producing industry now suffers millions of dollars in losses in bees and equipment and in potential honey harvests because of American foulbrood. Even under present conditions we are entirely justified in asking funds from the government for the solution of this problem. Trained men and proper facilities are available if funds can be secured. The industry has confidence in the ability of Jim Hambleton to direct the work. Let's all unite to see that he gets the money. The wise expenditure of a few thousands may save millions.

Insurance for Bee Men

We note by the Canadian Bee Journal that insurance for bee men giving protection against public liability and property damage is now available in Canada. It seems a bit strange that such insurance has not long ago been provided in this country. The occasional accident which results in serious damage through the stinging of animals or persons may prove very costly to the individual beekeeper. Such accidents are of such infrequent occurrence as to cost very little if the loss is distributed among a large number of beekeepers.

It would seem that this would be a service which the American Honey Producers' League might very well give to its membership. If an insurance fee of one dollar per year be charged it would in all probability be sufficient to meet all claims of this kind, yet the cost would be so moderate that no beekeeper could afford to take the risk. When bees do go on a rampage, horses are likely to be stung to death or passing persons seriously injured. To be protected against such accidents would be worth far more than the cost to every man who depends upon honey production to even a small extent.

Let us by all means have insurance.

The Scottish Viewpoint

In Great Britain a few years ago there was a terrible scourge of acarine disease. Many beekeepers lost all their bees and others saw their colonies greatly reduced. For a time there was much agitation for legislation. The British are conservative folks and do not place as much dependence upon laws as cure-alls as Americans do.

In the May issue of Scottish Beekeeper the editor comments on the improved conditions that have come

about without the help of legislation. He asks the pertinent question, "Now that we are almost out of the wood—as regards the crawling sickness—do any of us believe that legislation would have helped?"

Sooner or later nature restores her proper balance and too often the bungling of attempts to assist her by forced legal action only delays the final adjustment.

Long Tongue Bees

Only a few years ago there was much discussion in the bee magazines of long tongued bees which might work on red clover. With red clover commonly grown on the farms it was recognized as a possible source of large honey crops if only bees could be found which could reach the nectar. Of late the acreage has been constantly decreasing until the beekeepers no longer manifest much concern about red clover and the nectar hidden in flowers too deep for his bees. With the substitution of new forage crops better suited to his needs the beekeeper found that he already had bees which could store good crops of honey.

To Interest the Public

The beekeeper has a special opportunity to interest the public in his product by means of an observation hive. Such a hive used by the biology class of a High School attracted the attention of everybody about the building and many there were who came to the class room to watch the bees on numerous occasions.

A class in biology offers a chance to have the habits of the bees explained to a group of an impressionable age and the use of the hive serves a very useful place in the work of the teacher. The wide awake beekeeper will do well to have one or more such hives constantly available for use wherever suitable interest is manifested. The window or lobby of a bank is another place where such a hive is usually welcomed. A well displayed placard in connection with the hive can be used to give the public pertinent facts about the product which the bees produce.

Mistaken Action

Just when our Mid-Western strawberry crop was burning up for lack of rain, the worst failure in many years, a correspondent sent to the editor's desk a clipping from Tacoma News-Tribune, telling of the bumper crop there. The story was written to tell of the action of the code authorities in deciding that from a fourth to a half of the crop should be left to rot in the fields. Taking advantage of our extremity they tried to force high prices by refusing permission of the growers to pick the crop already grown and ready to harvest. Most Mid-Western tables had but few berries.

My correspondent stated that the growers had not profited by the action but that what profit there was had been absorbed by the jobbers. Perhaps men will yet learn that consumers cannot be forced to pay unreasonable prices—code or no code. Just how it can be reasoned that to permit a large portion of a crop to rot in a season of scarcity, can benefit society is hard to understand.

Codes were designed to prevent abuses, not to permit a few to fatten at the expense of the many. Western strawberry growers could just as well have had a fair price for the whole crop and thus would have benefited to that extent. It is such inexcusable action that will result in the failure of the whole movement and delay benefits

which might be secured by sane and reasonable cooperation. Properly directed codes might well be greatly to the public advantage.

We may well hope for great benefit from the present movement if the ultimate consumer is kept in mind when formulating codes of fair practice. We must find means of cooperative action in solving the problems of the time, but if we use them only to gouge the less fortunate recovery will be delayed instead of promoted.

Bees Killed By Poison

An article by R. L. Webster and Arthur Crews in the June issue of *Journal of Economic Entomology* deals with spray poison in the Yakima Valley. The facts stated are very disturbing to the beekeeping industry since they indicate increasing difficulties for bee men in regions where spraying is common practice.

Not only does the beekeeper suffer from spraying of fruit trees where as many as eight and ten sprays are applied but from the spraying of potatoes as well.

It is estimated that there are about ten thousand colonies of bees in the valley and W. C. Wixom the local bee inspector is quoted as authority for the statement that two thousand colonies were killed outright by poison with the estimate that another thousand would die. The loss of honey was estimated as 600,000 pounds on a conservative basis.

Bee men can hardly face such conditions for long. They must either find some relief, move out of the valley or quit the business. In some cases the individual beekeeper suffered almost a total loss of his apiary.

It is becoming apparent that the wholesale use of poison as a means of control of insect pests will in the end prove a costly failure. At best it gives but temporary relief and the cost mounts higher each year until the crops can no longer justify the expense. Add to this the losses of bees and other useful animal life and the cost becomes prohibitive. Some new and better plan must be found.

The Conservation Program

There is every reason to believe that the public will receive much benefit from the conservation program of the government. Large areas will be set aside for wild life refuges and for the planting of trees. The cutting of the forests and the clearing of every wild spot has already continued to the point where there are few such places still available in the Middle-West. It is fortunate that this change in the public policy has not been longer delayed.

For a generation the beekeeper has suffered the reduction of bee pasture through the cutting and draining and clearing. One after another of the wild sources of bee pasture have disappeared until little remains except the cultivated forage crops. The beekeeper may expect to profit directly from much of this attempt to restore the wilderness because of better bee pasture. The greater benefit, however, will be in the better living conditions in which the general public will share.

Save the Soil

It would seem that the adoption of a public policy which would compel such use of land as is necessary to insure its proper preservation for future generations, would at the same time readily solve the problem of farm surplus.

Since long use of land for cultivated crops reduces the humus content of the soil and results in blowing and erosion which permanently destroys the land, it would be wise to limit the number of years to which land can be continuously cultivated. If at the same time a certain

percentage of the acreage is required to be set in trees for the purpose of conservation of water and preservation of moisture the problem would disappear. All that would be necessary would be to limit the percentage of crops which could be devoted to grains in any one year and thus insure a proper balance of production to maintain yields on a permanent basis to insure ample food supplies. Under such a plan it would be impossible to build up a menacing surplus of grains and at the same time preserve the soil in proper condition to safeguard the future.

This would do no violence to our present institutions since it has long been recognized as public policy to safeguard the fundamental needs of the race. No man has an inherent right to so use the land as to destroy its usefulness for future generations yet this has been done to such an extent that untold thousands of acres have been destroyed by erosion and by blowing.

If we require that all owners of land provide a rest period by seeding a certain percentage to grass at reasonable intervals, that certain areas be planted to trees and that production be balanced in a proper manner we safeguard the future and remove the surplus problem while interfering with individual initiative to a minimum extent.

The Sales Tax

In states where a retail sales tax has been adopted the beekeeper is required to keep account of his sales and make a return of the tax. In Iowa farmers doing a retail business are required to file application for a permit. Those selling honey, eggs, poultry, fruit, vegetables, milk or other products direct to the consumers must pay the tax. Such articles sold to stores we understand do not require the tax since it is to be paid when the final sale is made by the merchant. While we do not have details of requirements of all the states we presume that they are essentially the same.

Price Cutting

Commenting on the discussion of a code for honey producers in this country, the editor of "*Bee World*" published in England offers a very pertinent suggestion. The British editor concludes that compulsion which would require legal sanction and red tape would do far more harm by cramping the operations of intelligent folk than it could do good by stopping the price cutting.

This statement is borne out by the numerous difficulties which have developed under some of the codes where price fixing has been attempted. The indications are that price fixing will be difficult to maintain. It has already been abandoned in the service codes.

While on the one hand producers of goods need protection against ruinous price cutting, on the other consumers are equally in need of protection against high prices which result from removal of all competition. It is difficult to find a sane middle ground which will be fair to all.

Sweet Clover

This year of 1934 indicates that all the boosting that beekeepers have done for sweet clover has been justified. Throughout the Middle-West farmers who have sweet clover have pasture for their live stock while their neighbors are compelled to feed in mid-summer. Likewise the beekeeper who lives in a neighborhood where sweet clover is plentiful is getting a honey crop while beekeepers in other localities are getting little honey. Never in recent years has there been a time when the beekeeping industry depended upon sweet clover to the extent that it does this year. Nor has there been a year when the general farmer depended upon it to the same extent. As a result the planting of sweet clover promises to be still further extended.



Famous Gambles in Plants

By John H. Lovell,
Maine.

White Mulberry. *Morus alba*. Flowers bearing fruit. A part of the mulberry trees bear male of staminate flowers, and a part female or pistillate (fertile) flowers. Natural size.

I WONDER if the gentle reader, if he had lived long ago, would have gambled in tulip bulbs, strawberries and mulberry trees, as thousands of the people did and lost their all. These odd ways of trying one's luck appear to be almost forgotten today, and it is astonishing as well as amusing to recall them. Agriculture can present no greater curiosities in ventures of chance.

The tulip was introduced into Holland and Belgium in the 16th century from the Levant. An Antwerp merchant to whom the bulbs were sent is said to have cooked them for onions; not so absurd a mistake as it would seem at first for to this day the natives of some parts of Persia use the bulbs of *Tulipa chrysantha* for food.

In Holland about the middle of the 17th century a perfect mania for obtaining rare kinds of tulips seized all classes of persons. It was known as the Tulip-mania and lasted three years (1634-1637). The trade was carried on not only by the merchants, but also by all classes of society. At first, everyone won and no one lost. Some of the poorest people gained in a few months horses, coaches, and houses and lived in a most extravagant manner. In every town a tavern was selected which served as an exchange, where high and low traded in tulip bulbs. The completion of a bargain was celebrated in a sumptuous feast. They formed laws for themselves and had their notaries and clerks. A single root of a tulip called the Viceroy was sold for four lasts (about 2 tons) of wheat, four of rye, four fat oxen, three fat swine, twelve fat sheep, two hogsheds of wine, four tons of beer, two tons of butter, 1000 pounds of cheese, a bed, a suit of clothes, and a silver beaker—the value of the whole being about \$1,025.

Later the tulip bulbs were sold by weight. The price of 400 perits (a perit is a little less than a grain) of

Admiral Liefken was \$1,064; of 446 perits of Admiral Van der Eyk, \$662; of 106 perits of Schilder, \$662; of 200 perits of Semper Augustus, \$2,255; of 410 perits of Viceroy, \$1,230.

Often a nobleman would pay \$800 to a chimney sweep for tulips which he sold to a farmer, and none of them ever had the roots in their possession. More bulbs were sold than were to be found in all Holland. In only one town more than \$10,000,000 were expended in this trade. Finally speculators became so reckless that the states of Holland interfered and the bubble burst. Very few escaped without loss.

Commercial strawberry growing in America takes its rise with the origin of Wilson's Albany, in 1851, a variety produced by James Wilson, a Scotch nurseryman at Albany, N. Y. He divided his plants among his neighbors, and himself received only a small income from his discovery.

The introduction of the Wilson was at once followed by an immense increase in growing strawberries. A "strawberry fever" swept the country between 1851 and 1870, reaching its height about 1865. Profits as high as \$1,000 per acre were secured. All classes of people, farmers, mechanics, merchants, and professional men rushed into berry growing. Strawberry exhibitions, first introduced by the Massachusetts Horticultural Society, were held in all parts of the country.

The planting became a reckless speculation, comparable to the famous tulip mania of Holland. No one would listen to warnings that the business was being overdone. The inevitable crash came. Prices dropped to three and four cents a quart, and hundreds of cartloads were dumped into the rivers. Great fields of berries were ploughed under. Many lost heavily, and the ten years following were known as the "slump period" in American strawberry growing.

In 1619, James I sent silkworms to Virginia, with an expert in their culture. Bounties were offered to farmers who should produce silk, and penalties laid on those who failed to plant mulberry trees.

The culture of the silkworm was also attempted in Georgia, which in 1766 realized its highest point, 20,000 pounds of cocoons being produced, yielding some 200 pounds of raw silk. The industry vanished soon after the Revolution. Silk culture was likewise attempted in Pennsylvania, Connecticut, and other states, and has been continued sporadically almost down to the present day.

About 1838 a singular mania for speculation in the buying and planting of mulberry trees developed in the United States. Up to this time the worms had been chiefly fed on the leaves of white mulberry. A vigorous effort was made to introduce *Morus multicaulis* (the many-stemmed mulberry), a variety of white mulberry, on the ground of its rapid growth and abundant foliage.

So intense did the excitement become that this shrub or tree was planted to a great extent in place of all other crops. Cuttings reached an extravagant price. Slender cuttings two feet in length, sold at from \$2 to \$5 each. One nurseryman ordered 5,000,000 new trees from France, sending \$80,000 in advance payment. In Pennsylvania \$300,000 changed hands for plants in one week; often the trees were sold two or three times over in one week.

Speculation reached its height in 1839, and in the autumn of this year the bubble burst. Thousands of speculators were ruined. By 1840 trees could not be sold for two or three cents each. In 1844 a violent storm destroyed most of the remaining plantations. Thus ended a speculation in plants without a parallel except in the tulip-mania of Holland.

Bee Plant Booms

This article by Mr. Lovell brings to mind a number of interesting booms which have taken place among the beekeepers, although but small sums of money were involved.

In the 1880's mignonette was boomed in the bee papers as a bee plant and many plots were planted. One California bee man was so enthusiastic that he wrote that an acre would support a hundred colonies of bees.

In 1877 a man named Simpson found the figwort growing in his neighborhood and sent seeds to A. I. Root saying that it was the coming honey plant but that he did not know its name. The beekeepers adopted it under name of "Simpson's Honey Plant" and quite a little boom developed. Many men tried planting it, including Dr. C. C. Miller.

The next was when the globe thistle was introduced from France in 1885. A man named Hiram Chapman, of New York State, introduced it to the beekeepers with such high praise that the National Beekeepers' Association appointed a committee to visit Chapman and report on it. They found that he had planted three acres and reported it so favorably that another little boom started for this plant under name of "Chapman's Honey Plant."

Most of our readers will remember the more recent boom for the annual sweet clover when seed sold as high as \$300.00 per bushel.—F. C. P.

Honey-Milk Candy

Experiments at the Dairy Department of Iowa State College have included honey in their search for new outlets for dairy products. Recently a new candy has been developed under direction of C. A. Iverson which has aroused some enthusiasm. "Honey-Milk Candy" sounds like a winner. Anyone interested in a product of this kind should write to Prof. Iverson at Ames, Iowa, for information as to its preparation. Such new products offer great possibilities for the future.

Bees Move Eggs?

About once in so often someone comes out with the proof that bees move eggs (American Bee Journal, October 1933, p. 412). Bees are creatures of instinct and all their doings are instinctive. If they move eggs, then some time in their past history they had the habit of moving eggs. Ants do it and so why not bees?

But ants and bees, though related, have a different history and personality. I believe their common ancestor placed each egg in its final resting place. Bees will not tolerate loose objects in the hive. Loose eggs are eaten or cast out as I have noticed many times. Now if the bee places

an egg in a cell it must fasten it there or some other bee will remove it. To fasten it requires some kind of cement.

Does the bee possess such a cement? The queen does and fastens each egg as she lays it. It would seem, therefore, very unnatural for bees to move and fasten eggs. I never yet have seen a statement of bees moving eggs in which there was not some weakness.

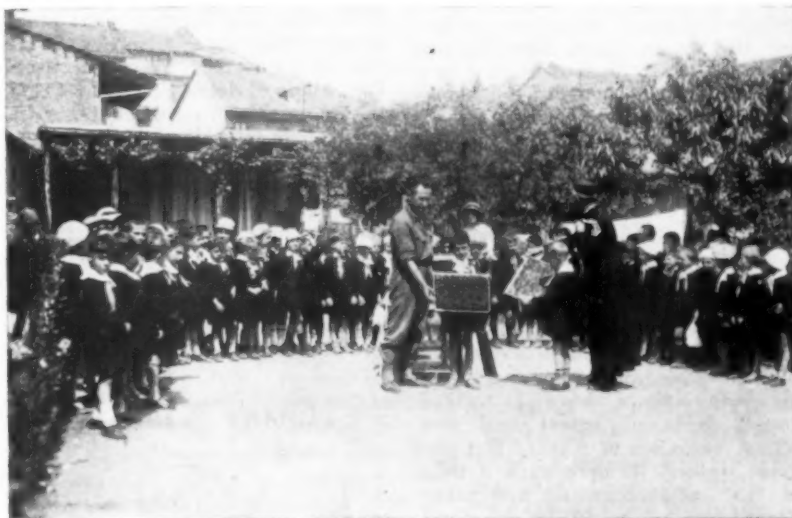
Now Mr. Pering does not say whether the cage in which the queen was confined was wire side up or not. If the wire was up, how did the bees get the eggs out of it? We must assume, therefore, that it was wire side down. Thus the eggs fell through

the screen. In falling they hit bees and bounced into cells. If they did not bounce into cells they fell to the bottom board and rested there till carried from the hive or until eaten. Now if they bounced into cells, they might be tolerated by the bees even though they were loose.

Of course, it is not safe to say that bees never do this or that. If the eggs bounced into the cells, then, of course, the bees did not move them. Also, Mr. Pering does not say that he knows the hive had no other queen. Not seeing another queen is no proof. Did he sift the bees and prove it? I am still from Missouri.

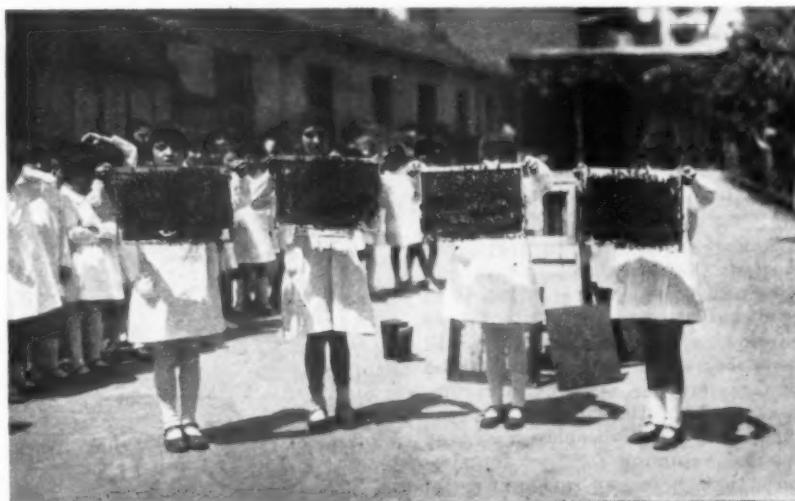
Allen Latham,
Connecticut.

As They Teach Beekeeping in Italy



DR. D. G. Angeleri, publisher of "L'Apicoltore Moderno," sends four pictures of classes of beekeeping at Turin formed entirely of small children who are receiving instructions in apiculture. We reproduce two of them here. An observation

hive is used and the little folks soon learn to handle the gentle Italian bees with little fear, posing for the picture with ease and grouping themselves readily about their instructor in the work of the class.



What Is Involved in Producing An Improved Bee?

By H. S. Rogers,
Illinois.

IS Dr. Watson too optimistic when he predicts an improved bee in a few years? I think not. Natural selection has not produced it in several times three thousand years, to be sure, but towards what goal was Nature working? Perhaps she was fairly well satisfied with the honeybee as it is and selected only to fix present characteristics. And she will remain satisfied too, until a time, perhaps a million years hence, when the environment may change and make the present type definitely unfit.

But man is not so complacent! If there is any chance for improvement he will select for it, and get it quickly, too. He has in other cases; he can in this. It took Burbank just a few years to produce an improved blackberry. He raised forty thousand seedlings and among the forty thousand found one with the characteristics desired. The remainder were burned. Most of our best varieties of wheat, of fruits and of disease-resistant vegetables, appeared suddenly as variations, bud variations, or mutations or "sports." One wonders what vast numbers of such variations have been lost to man through man's own inability to see and recognize them! How many times have I walked through fields of wheat and saw nothing, but a sea of wheat? But one farmer walked through such a field and saw and recognized one plant different and better. That one plant produced our most important variety of wheat, the Marquis. It did not take years, it required eyes; eyes with an understanding mind behind them!

Variations and mutations occur among animals as well as among plants, doubtless among bees. It is required, however, that some beekeeper recognize and perpetuate the different and superior bee. An article in the *American Bee Journal* last winter attempted to define the ideal bee. That is the first step. If beekeepers have an ideal in mind they should be able to recognize any colony that may show a variation in the right direction.

We are not limited to fortuitous variations, however, but can recombine characteristics present now in any of our modern varieties of bees by following Mendel's law. We will attempt to show here how this can be done, assuming an attempt to recombine characteristics present in the Italian and the Caucasian races of bees, and assuming further, for simplicity, that these two races differ by

only two pairs of unit characters, yellow color vs. gray and long tongue vs. short tongue. Drones are produced by parthenogenesis and make the situation somewhat different from that found in ordinary animal breeding. The drones thus complicate matters somewhat.

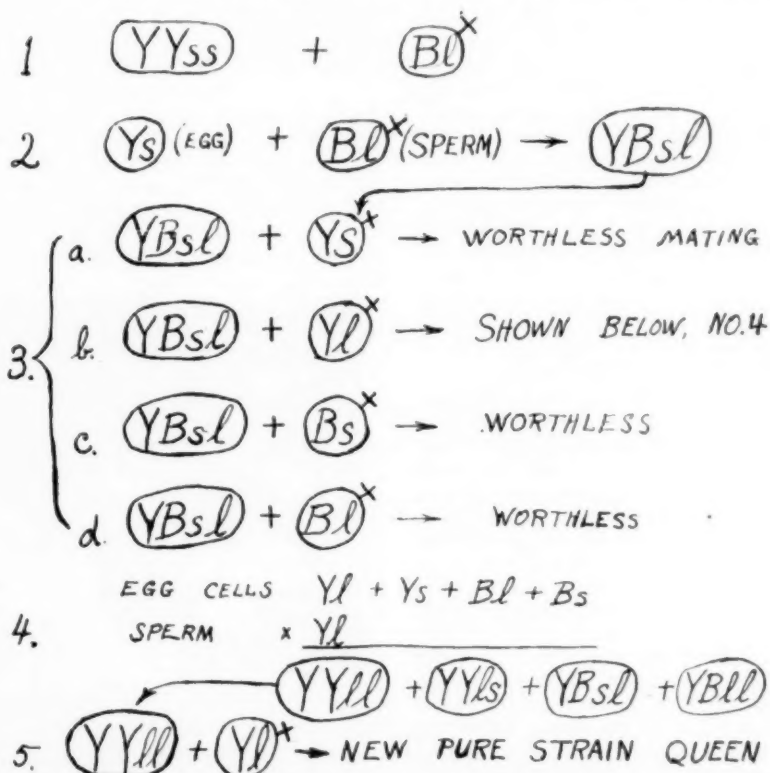
Select a pure strain Italian queen that has mated with a pure strain Caucasian drone. (It would be easy to allow a pure strain virgin to mate in a Caucasian apiary.) Use this queen (No. 1) to requeen the entire apiary with hybrid queens. These will be used for drones only, hence it will make no difference what kind of drones they mate with. Call them "series 2 queens." They will produce four kinds of drones (series 2 drones) taking combinations of characteristics from their hybrid mother, since they are produced by parthenogenesis. For this reason also the drones will not show mixtures of opposing characteristics but will be either pure yellow like the Italian or pure black like the Caucasian, each with either long or short tongues (If controlled mating is to be used we will have to learn how to recognize desired worker char-

acteristics in a drone. Color is easy, but some other characteristics, such as the tendency to propolize, could not be recognized.)

As soon as the apiary is stocked with series 2 drones, if controlled mating is not to be used, we again raise a series of hybrid queens, (series 3 queens) daughters of No. 1 queen, which will now be able to mate with series two drones. Of these drones only one out of four will give the combination wanted. If the desired characteristics can be recognized in a drone and controlled mating is used, time might be saved, but otherwise several series 3 queens will have to be allowed to head colonies and their colonies studied in order to select the required combination.

The desired combination is indicated as mating "b" and will occur only about once in four matings. Also only one worker in four in this queen's colony will show the characteristics pure (yellow color, long tongue). This No. "b" queen will now be used as a breeding queen. One out of four of her virgins will be **pure** for the characteristics required and if the yellow, long tongued drone

CHART SHOWING POSSIBILITIES SUGGESTED



can be recognized and if controlled mating is used, the new pure strain is now established. If not and they mate by chance with series 2 drones only about one out of sixteen of the daughters of No. "b" queen will be the pure strain queen correctly mated as required. When she is discovered our new bee is made.

To perpetuate this strain pure, requeen an apiary with daughters of the new queen. None of these will be mated as desired, but will stock the apiary with the desired drones so that this apiary can now be used in which to mate queens of the new strain.

The proposition is not as simple as this in reality, because Caucasians

and Italians differ by more than two pairs of characteristics. But the only difference in the procedure required would consist in raising more queens to select from and in increased difficulty in selecting among the larger number. Instead of selecting one out of four, it would more probably be one out of sixteen or one out of sixty-four. A difficulty in using controlled mating, aside from technical difficulties, would arise from the difficulty of identifying the required drone. Imagine success would depend, as indicated before in the ability to select.

Are there any "Burbanks" among the beekeepers?

Opinions, Pro and Con, on a Marketing Agreement

By Mrs. T. H. Shephard,
California.

AS the discussion of a marketing agreement continues, the amazing character of dissenting opinion so impresses me that I have listed various attitudes for analysis.

One notes first that the opponents of the marketing agreement provide no answer for the beekeeper's insistent question, "How shall I conduct my business at prices below the cost of production?" except the futile advice to cut costs. Such curtailment already has been carried further than is socially desirable in view of the administration's attempt to raise wages and prices of commodities. It leads downward to a primitive simplification of the industry offensive to the beekeeper who wishes to live in a modern home, send his children to college, and contemplate an old age free from penury.

There is also the opinion that beekeepers, because of an absence of co-operative spirit, cannot unite upon a program. Mr. Walter H. Hull, in his excellent article in the April issue of "The American Bee Journal," proves that this judgment may be premature and unjust to beekeepers. At least it is of little value when the question to be decided is the desirability of a marketing agreement. There is time enough to say we can't after we have tried and failed.

A paradox still more astonishing may be found in the thought of the opponents of a marketing agreement. They assert that the industry does not need relief, and in direct contradiction that beekeepers cannot secure a minimum price based on the cost of production on account of the unfortunate business outlook. This confusion is a symptom of the deeper bewilderment of minds resentful toward a changing world, and hopeful

of bringing back the old merely by refusing to believe in the new. Neither the beekeeping industry nor the United States will ever rise from this depression without the application of intelligence. We must accept this thought without permitting it to terrify us.

One observes in the bee journals frequent references to "rugged individualism." The only "rugged individualist" that ever existed in the United States was the pioneer in hostile land without comrade or neighbor. Such a condition is for us so undesirable and so impossible to restore in its primitive simplicity that it may be considered irrelevant to the discussion of a marketing agreement. Government paternalism always has surrounded us, of which the most conspicuous example is the tariff, sacred in New England Chambers of Commerce.

The opinions of those who oppose a marketing agreement must not be harshly condemned. They represent a skepticism which often disappears when the marketing agreement is studied carefully. The reaction of the beekeepers of the Imperial Valley of California to this issue indicates that the dissenters are not numerous, and that the majority of the industry are willing to embrace a plan which establishes a fair price for honey.

The beekeeper cannot exist in an organized world unless he reforms his manner of marketing his honey. When he buys cans and cases, he pays a "code" price; he is hedged around by monopolies. Similar products, such as sugar, are receiving consideration in the program of price raising. The situation should stimulate us to action.

Beware the Processing Tax

By Robert M. Mead,
Vermont.

If any Government official approaches you in regard to your sentiments on a processing tax on honey tell him that you are definitely not in favor of any such tax. If he does not understand that, set the dog on him, or send for me.

There is a joker in this processing tax business that every one ought to understand. Held out as a promise of big bounties for reducing production, heralded to the city folks in the daily press as paying millions to the farmer and called by its father brain trust the savior of American industry it is in reality, when stripped of its gaudy wording and political whitewash, nothing but another tax.

It may help someone for the moment by paying a bounty for reduced acreage but it penalizes that person, and others in the business affected, by placing a tax on his produce that may never be removed. For each industry so taxed a bureau must be set up in Washington to administer and enforce the provisions of the tax. The cost of maintaining this force of collectors and administrators takes a continual percentage from the fund that is collected so that in the end the business taxed must lose by the tax. It cannot possibly benefit in the long run.

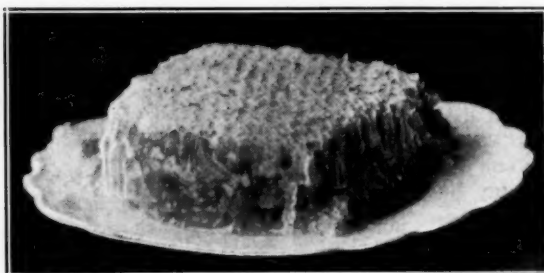
It places the Government in the position of a racketeer. They collect the tax under the guise that it is a benefit while actually it penalizes the industry taxed. In many instances it has lowered the price to the producer and raised it to the consumer. It is a double edged sword, cuts both ways and around corners and is to be avoided as one would avoid the devil.

Missouri State Fair

Announcement has recently been made that the premiums on apiary products at the Missouri State Fair will be substantially increased. The fair will be held at Sedalia, August 11 to 18.

Clay T. Davis is superintendent of the apiary department and Dr. O. W. Park of Ames, Iowa, and Miss Essie Hoyle of Missouri University are the judges. Honey cookery will provide an important part of this year's exhibits. More interest in honey cookery is manifested each year.

As usual the big prizes are given for displays with a first prize of \$32 and four other cash prizes for general display. With five awards in each of eighteen classes each exhibitor has a good chance to win substantial prizes.



A New Respect for An Old Sweet

By H. A. Schuette,
Department of Chemistry,
University of Wisconsin *

EVERY housewife knows the importance of sugar in the home dietary, and probably most of us will admit a certain degree of fondness for sweets. Each one of us consumes more than one hundred pounds of commercial sugar every year which does not represent the total sugar consumption because many foods, particularly fruit, are rich in this ingredient.

For example, the citrus fruits, oranges, grapefruit and lemons, although acid to the taste, contain in their edible portions, approximately eight to twelve per cent of sugar; grapes, whose chief acid ingredient is tartaric acid, contain as much as twenty per cent of sugar in the edible portion; whereas the so-called malic fruits, apples, pears and peaches, have nine to fourteen per cent of sugar. The total *per capita* sugar consumption is obviously larger than that which we buy as such.

It might be well to state also that, in addition to this impressive quantity of sugar, we consume large quantities of starch, like sugar itself a carbohydrate, and that starch in some form or other makes up over one-half of our food. Our bodies cannot utilize it as starch and so by certain digestive processes, it is converted into a kind of simple sugar, and so becomes available for our nutritional needs. Ordinary sugar suffers a like fate before it is assimilated, but two simple sugars are formed in this case.

Ordinary sugar is not our oldest sweetening agent. That honor belongs to honey. When, and under what circumstances, man first took honey as a food has been lost in antiquity. There is evidence that the gathering of wild honey was practiced in the Stone Age. The ancients had no sugar. They used honey in almost everything that we today put sugar into.

Honey is a natural, unrefined syrup from which nothing having nutritive value has been removed. Its major constituents are the sugars dextrose and levulose, both directly absorbed by the blood stream without any previous tax upon the digestive system in so far as necessary chemical changes are concerned.

Among the mineral matter in honey will be found practically all of those chemical elements which are part of the human skeleton. Future research may perhaps contradict such a sweeping statement, yet at the present writing and in the light of current knowledge, it is probably correct.

[In an article in the American Bee Journal, August, 1933, page 308, Prof. Schuette calls attention to the presence of copper, iron and manganese in dark honey and points out their importance from a nutritional standpoint because of the relation of iron to the coloring matter of the blood or haemoglobin, which has the power of carrying oxygen to the bodily tissues. Copper and manganese seem to add to the powers of iron in restoring the haemoglobin content of the blood of patients afflicted with anemia. He includes this same material in his radio address of which this article is a partial copy so we have left that out and refer you for that information to the article mentioned.—Ed.]

Everybody knows that honey is sweeter than sugar. But why this is true is perhaps not such general knowledge. Here is the answer: as I stated before the predominating sugars in honey are dextrose and levulose. Also there is usually a small, but far less amount of ordinary sugar or sucrose. Levulose is relatively much sweeter than sucrose, but dextrose is not as sweet. In the first case the ratio is approximately seventeen to ten, in the latter it is seven to ten. Since honey consists, in a sense, of an equal mixture of these sugars, it follows that the greater sweetness of the levulose is somewhat reduced by the less sweet dextrose, yet the average is above 100, the figure arbitrarily chosen for our yardstick, or ordinary sugar.

Glucose is without question our most widely distributed sugar. All of our common food sugars, sucrose (cane or beet sugar), lactose (milk sugar) and maltose (malt sugar), and the carbohydrates, starch and dextrin, are converted to simple sugars during the process of digestion. One of these simple sugars is always dextrose. Does it not seem logical to deduce from this fact that dextrose is the universal fuel sugar? It occurs abundantly in fruits and

some vegetables. The brown powder on the surface of prunes and raisins consists of glucose crystals, whence its common name grape sugar. When honey "sugars" it is the glucose that has separated.

Levulose, known also by the popular name of fruit sugar, tops the list of sugars in the scale of sweetness. In this respect it exceeds sucrose by more than the latter exceeds dextrose. Like dextrose, it occurs very widely in the plant world, especially in fruits. Some years ago the prediction was made that, if one could only prepare this sugar in commercial quantities, it would compete rather successfully with ordinary sugar in popularity. Its manufacture at that time had not passed beyond the syrup stage. However, recent advances in the art have brought about a successful way in which this syrup can be made to deposit crystals of pure levulose. Since the Jerusalem artichoke is now used as the starting point in its manufacture, it is quite probable that the popular fancy will christen this sweet "artichoke sugar" and for the same reason that dextrose is "corn sugar."

Neither one is the direct product of the sap or juice of the plant in question. Rather both are products resulting from the chemical treatment of starch or a starch-like substance which is characteristic of the plant. For this reason it would not be illogical to speak of the first as "potato sugar," providing that it has been made from potato starch, and to name the second "dahlia sugar" for the dahlia plant which stores up in its tubers the same substance, inulin, for which we value the artichoke. For that matter, the lowly dandelion and the wild chicory have good claims also for the addition of the word sugar to their names as synonyms for this prized sweet.

The ancients appreciated honey for its health-giving qualities as well as its flavor. Early Grecian and Roman physicians smeared honey on the rim of the cup containing the medicine in order to soften the bad taste of their drugs. Who is not familiar with the passage from the Scriptures in which King Solomon says, "My son, eat thou honey because it is good, sweet to the taste and health to the bones"?

*A part of a lecture delivered July 24, 1933 on the Homemakers' Radio Program, State Stations WHA and WBBL.

What do modern physicians say on this subject? Dr. R. G. Flood (Archives of Pediatrics 42:1925, 50) reporting his observations in a western hospital on the subject of the selection of sugars in infant feeding says, "Honey owes its ease of absorption to the free available dextrose in the mixture and its laxative action to the levulose fraction which is absorbed slowly, so it eventually reaches the large intestine. **These properties make honey a very valuable sugar in the treatment of constipated bottle fed infants, and in our hands have profited these children a great deal.**"

He explains, also, in his report that the common sugars which are used in infant feeding fall into two main groups with honey occupying an intermediate position. In the first group are those sugars which are broken down exclusively to dextrose in the digestive processes. Besides dextrose itself, which needs no modification, this group includes malt sugar and commercial or syrupy glucose, our so-called corn syrup. In the second group are those sugars like milk sugar and ordinary sugar which yield under similar conditions only dextrose in part.

In discussing the therapeutic effect of various food articles, Dr. A. M. Liebshtein (American Medicine, 33: 1927, 33) from the other side of the continent writes:

"Honey is a very concentrated and nutritious food article, easily digested and assimilated. It is a good emollient, soothing, vitalizing and energizing agent. It has a good many therapeutic indications. It is very beneficial in diseases of the pharynx, larynx, kidneys and bladder. It is laxative and sedative in its therapeutic actions."

From the culinary point of view honey has also advantages for it adds much in the way of flavor and aroma to foods since it has more than the flat sweetness of sugar. Why is cane sugar used in such greater quantities in cooking? Not because of any superior qualities but rather, because of modern methods of manufacture, it can be refined, shipped and distributed in a way to bring its cost below that of honey.

Honey is difficult to handle. It is sensitive, susceptible to changes in temperature and atmosphere. But all of this is nothing when one considers it from the standpoint of delicacy of flavor. **As a sweet, it has no equal.**

Honey is a food of almost the same energy value as cane sugar. A honey of eighty-one per cent sugar content has an energy value of 1481 calories per pound. To get one hundred calories of this sweet it requires a thirty-one gram portion (or approximately a tablespoon full); of sugar slightly less, or twenty-five grams, is required.

We Americans have been accused of eating too much sugar, far more than our actual needs. Because honey passes into the blood stream more rapidly than does sugar, it satisfies the appetite more quickly. **And because of this greater speed of action there is little danger that one will eat too much honey.** Might not a wider use of honey reduce our per capita consumption of sugar to within that range which physiologists say is best for us?

Spray Poisoning

Yakima Valley beekeepers are experiencing a new difficulty that may almost wipe them off the map. Their bees are being killed by arsenate of lead spray applied to the potato vines to destroy the Colorado potato beetle. After fighting fruit sprays for years by removing the bees to districts where there is little or no fruit grown, they now find such districts as impossible as the orchard districts. The Colorado potato beetle is comparatively new here. Only in the last few years has spraying been found necessary.

The president of the State Beekeepers' Association asked me to write to the American Bee Journal and Gleanings to see if through their editors, readers and the various state associations and apiarists in locations where the Colorado potato beetle is abundant, we could get some information that would help us in our trouble, as we feel sure that honey is produced in localities where potatoes are sprayed for this pest.

As this is a new pest to us we have no absolute knowledge as to why the

spray kills bees or rather as to why the bees go to the potato fields to gather the poison. Personally I have never seen bees working the potato blossom. It is generally thought that arsenate of lead has a sweet taste and as bees like to gather moisture from leaves and the potato leaves are inclined to be moist in the morning or after irrigation, we infer that the bees are getting the poison in this way.

When I lived in the Central States I knew it was necessary to spray potato vines to keep down the bugs, but I was not a commercial beekeeper at that time and did not know if bees were affected. However, I remember that Paris green was the poison used. Here the arsenic spray is used entirely. I think they use this poison because every concern that handles spray has it in stock for the orchardist who can not use Paris green as it burns the leaves of the tree.

We would very greatly appreciate it if everyone who could help us in this problem would do so by writing to me personally or through the Journal which I am sure reaches all the good honey producers in the valley. We are up against something that we apparently know nothing about.

The recent floods here in the valley did considerable damage to some of the beekeepers. C. H. Schader of Sunnyside (the president of our State Association) lost about 125 two-story colonies, although he had moved part of them to a supposedly safe place.

Thanking you in advance, I remain,

Yours,

I. L. Swain,
Prosser, Washington.

A Traveling Reminder



NATT N. DODGE sends this picture to show how one Washington baker features honey bread. Rapidly bakers are turning to the use of honey both for its actual good-

ness and its improvement of bread and for its advertising value. A modern honey loaf, properly made, is as near a complete food as man has so far been able to devise.

FROM THE LITTLE BLUE KITCHEN



THORNS!

Nobody likes a thorn,
But all adore a rose,
Yet why together born
There's not a mortal knows.
How sweet are berries culled
From garden or from field,
But vines defend with briars
The luscious fruits they yield.

What soft and lovely silks
Are spun on thistle looms,
Yet with Damascus blades
She guards her dainty blooms!
The nectar from flower cups
Bees to their hive-homes bring
But each one carries, too,
A deadly little sting!

So 'tis throughout all life
The joys which earth adorn
Oft come to us through strife . . .
Ay, each rose has its thorn!
But they of valiant soul
Heed not life's pricks or stings
When they would know the thrill
Of having worthwhile things!

Joys easy to attain
Are lightly held on earth,
But those hedged 'round with thorns
Are counted of real worth,
And this sweet truth all hearts
With courage, new, inspires
To battle with the thorns
And thank God for the briars!

—Lida Keck-Wiggins.

— o —

AUGUST is here again—the hot old month named for Augustus Caesar a Roman Emperor, who for some reason seemingly rather obscure to historians, chose to add an extra day to the month the old Romans called Sextilis—the sixth month from March—the month with which the primitive Roman year began! Some people just naturally pass out with the heat in August days—keeping “cool” by fanning, taking baths, swimming, if they have any water left in their swimming holes or pools—and eating and drinking the coolest things they can find. All of these ways have some virtue, though I do hold that fanning **does** usually make a person hotter, and prefer, when possible, to let the electric fans do the work!

Among all the cooling processes, however, Honey Lady believes that keeping the “innerds” at as low a temperature as possible is the best bet.

Hence you readers of Little Blue Kitchen, you faithful ones who read regardless of the thermometer, will find, I trust some helpful hints for August menus and for August drinks.

And that's where our special commodity the good old honey pot comes in! Even though this is a repetition of something said a year ago, Honey Lady wants to insist that honey is by far the best sweetener for fruit drinks or any flavor. It has something in it that satisfies as well as sweetens; it has a health value that none can deny, and then those who have colonies of bees can procure honey a good deal easier than to buy cane sugar especially since the price has soared of late.

Well enough said about that. Let's to the recipes, or at least suggestions themselves.

Most of you have ice or electric refrigeration, but even if you have only the cool water of an artesian well, or from a natural spring—perhaps rippling and gurgling through an old-time spring house, you may have lovely summer drinks which will surely make August seem a much more pleasant month than otherwise.

Let's begin with the drinks—Ice Tea. Everybody knows just **about** how to make that, I suppose, but perhaps we haven't all thought of pouring into the tea a generous flow of honey. Mix it well, and then if you want a really truly delicious drink add mint leaves and lemon juice! It's nourishing, it's pleasing to the palate and it cools the blood! Honey Lady “knows a man” also who is very fond of iced coffee and says honey makes it perfectly delicious! Blue Kitchen has to serve as both kitchen and dining room owing to Honey Lady's living in Government “Quarters,” so a glass of cool coffee or tea helps to overcome the heat from cooking, and both have often been tried out; so has iced cocoa, honey-sweet.

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And speaking of cold tea here is a way to make a delightful punch.

Honey Fruit Punch

- 2 tablespoons of tea
- 2 quarts boiling water
- 3 pints extracted honey
- 4 oranges
- 1 fresh pineapple
- 1 pint strawberries (canned

will do, if no fresh ones are available)

6 lemons

Grate the rind of two lemons and cook with the honey and water for five minutes. Pour over the tea and let stand for five minutes. Then strain. Cool. Cut two oranges in slices. Cut pineapple into small pieces. Add to these things the strawberries; then blend all well together and add juice of remaining lemons and oranges. Add cool tea to fruit mixture and place in the ice box or electric refrigerator to chill. Pour into punch bowl with ice cubes or small pieces of natural ice, and if you want to be especially “festive” drop into the bowl several maraschino cherries. Serve in punch glasses.

— o —

And here is a truly lovely and refreshing “Fruitade.” The amounts given serve two people, but if more are to partake milady may just double or treble the amounts.

- ½ cup shredded (or crushed) pineapple
- Juice one orange
- 2 cups water
- ½ cup honey
- The juice of a lemon

Mix the lemon and orange juice with the pineapple; then add the honey. Strain the mixture and place in the icebox to get cool. If you have electric refrigerator, serve this drink with ice cubes. Otherwise with natural ice.

— o —

A recipe book furnished with one of the best-known makes of electric refrigerators suggests freezing into each ice cube a maraschino cherry to serve as a garnish, or as some men folks say, “just to make things look prettier!”

— o —

Recipes for grape juice punch sweetened with honey have been given before in Blue Kitchen columns. Look through your files of the American Bee Journal for these if you have forgotten, for grape juice does a lot of nice things to your system, especially when combined with honey.

— o —

Here is a very easy cold dessert to make in the refrigerator tray:

Plain Mousse

- 1 cup heavy cream
- ½ cup honey
- ½ teaspoon vanilla or lemon flavoring
- 1 egg white

Whip the cream till very stiff. Add the honey and vanilla. Then the white of egg, also beaten very stiff. Pour into the tray and freeze. This frozen sweet doesn't need to be agitated as do the ice creams. This mousse is very good when eaten by itself, but may be used with fresh or canned

The honey used in the Blue Kitchen is furnished for the good of the cause, by the New York State Federation of Beekeepers' Societies.

fruits, or on angel food cake to great advantage.

— o —

Now let me tell you about a perfectly gorgeous frozen sweet. Frankly Honey Lady "got hold" of the recipe originally from a modern electric refrigerator booklet, but the honey content is her own idea, and as it works beautifully, she passes it along, even though she does have to say "please," for some of the directions. The sweet is called Peach Frozen Cream, and late ripening peaches or even nice canned ones can be utilized to make a lovely dessert for an August noontide dinner. Here 'tis:

Peach Frozen Cream

- 2½ cups sliced peaches
- 1 cup extracted honey
- 2 teaspoonfuls gelatine;
- ½ cup cold water
- 2 cups coffee cream

Peel and slice the peaches, if using fresh ones; add the honey and cook from five to six minutes. Remove from fire and put through a colander. Soak gelatin in cold water, then add hot fruit mixture and stir well. Cool, then place in refrigerator to chill. Add 1½ cups cream to fruit mixture, pour into tray and let freeze firm.

Remove from tray into ice-cold mixing bowl. Add ½ cup cream. Beat until mixture becomes very light (rotary beater is best). Return to refrigerator and allow to finish freezing without further agitating. One-half teaspoonful of almond flavor can be added if desired. Honey Lady finds that while almond extract is good, that orange extract or even old reliable vanilla does the trick equally well.

Incidentally if you prefer not to use gelatine, or don't happen to have any on your shelves, then use heavy cream instead of coffee cream, and the same texture will result in the finished cream.

— o —

Ever try making Honey Apple Butter? Here's a recipe sent Honey Lady by Mrs. Edgar Hodge, of Mechanicsburg, Ohio, which should be good, as she makes this delicious spread from her own apples and her own honey. Here's a joke in passing. Honey Lady's husband once "helped out" at Mrs. Hodge's farm in stirring the apple butter in the big copper kettle out in the yard. This procedure took place not so far from the beehives, and one of the "workers," evidently "smelling a mouse" (which being interpreted in this midst means stolen honey) in the kettle, lighted on the gentleman's ear and gave it a decided "sting." Hence his recollection of making honey apple butter isn't quite so sweet as the mixture might warrant. However, let's get along to Mrs. Hodge's recipe which is as follows:

Honey Apple Butter

- 1 gallon good cooking apples

- 1 quart honey
- 1 quart vinegar
- 1 heaping teaspoonful ground cinnamon

Cook several hours, stirring often to prevent burning. If the vinegar is very strong use part water.

If you "just can't" sit reading out under the trees or any other cool place, without nibbling at a sweet, why not have a little dish of honey-in-the-comb near by and "chew on that." Much healthier and much cheaper and oh how much better for the toofies and the tummy!

THE EDITOR'S ANSWERS

When stamp is enclosed, the editor will answer questions by mail. Since we have far more questions than we can print in the space available, several months sometimes elapse before answers appear.

A CLIPPED VIRGIN

I have a queen bee which I raised myself. I have seen her three or four times a day on the running board and she runs all over the hive. Could you tell me what the trouble is?

How long before a young queen will start to lay? She runs all over and goes back in again. I trimmed her wings. I thought probably she was not impregnated.

NEW YORK.

Answer.—You made a mistake in trimming that queen's wings before she was impregnated. Her going about in front of the hive shows that she wants to mate, but her clipped wings will prevent that. Now, the only thing she can do is to lay drone eggs. She will then be what we call a drone layer. You will have to kill her and rear another.

A queen begins to lay about two days after being fertilized. She keeps on as long as she lives, except in cold weather. You should read some book on bees.

USE OF AN OILCLOTH

Is it considered good policy to have a cloth or oilcloth between hive and top cover? Between super and cover?

IDAHO.

Answer.—Yes, it is good policy to use a cloth between the hive body and the super or between the hive body and the empty cap, when the crop is not on and the bees do not need to spend their time and waste heat in the upper story. We always use an oilcloth over our brood chambers.

COMB DRAWING—REQUEENING

(1) How many Modified Dadant frames should a new swarm of bees have drawn out by now if put in about May twenty-fifth? Mine have from seven to nine.

(2) If requeening is to be done yet, just when is the best time to give the colonies capped queen cells? Will the latter be readily accepted (better than young fertile queens) when there is no honeyflow?

ILLINOIS.

Answer.—(1.) The number of combs which a swarm will build depends entirely upon how strong the swarm is and how much honey there is in the field at the time it is hived. Seven to nine combs is a fairly good number.

(2) Any time when queens are needed is the proper time to give them young queens or queen cells. The very best time to rear young queens is after the crop is over. If you remove the old queen, queen cells or young fertile queens will be accepted about two days after the colony has been made queenless. Of course it is safest to introduce queens or queen cells when there is a flow of honey.

STORING HONEY

Can you tell me what causes my extracted honey to sugar? I have been heating it to

140° and storing it in the basement. What is the proper temperature? Also at what temperature should it be stored?

ILLINOIS.

Answer.—It is quite probable that your honey was not ripe enough when extracted, that is why it granulated or went to sugar as you call it.

We have been in the habit of trying to get our customers to accept granulated honey as good. In fact it is good. The only trouble is that many people think that it is spoiled when it goes to sugar.

We would suggest that you heat your honey again and keep it at 140° for several hours. It is an unpleasant job and there is a chance of spoiling the honey if you happen to overheat it, but we don't know of any other way. Some grades of honey never granulate and it would be quite satisfactory if none of them did. But we cannot help it. Some of the best honey in the world granulates and we think it is best in that shape.

SPACED FRAMES

If you whittle the shoulders of self-spacing brood frames so they will hang loose, as you say in your book "Dadant System of Beekeeping," how do you get them spaced correctly, or do you just guess it? I don't like the way my bees glue them together.

ILLINOIS.

Answer.—We have never seen the need of spacing shoulders on frames. If you are afraid of not hanging them at proper distances, it is not difficult to make some marks with a pencil on the shoulder of the hive where the frames rest.

After they have been glued by the bees, it is not hard to make them stay just wherever you want them.

QUEENS THROWN FROM MAIL CARS

I have been ordering a few queens every year and they are always sent as first class mail and are thrown off the fast trains that pass here at a speed of 60 miles an hour. Do you think it does the queens any harm by throwing them off these fast trains? You know they get an awful jolt when they hit the ground. Some of these queens are very slow about doing anything after they are put in the hive. Couldn't I raise my own queens that would do just as good?

KENTUCKY.

Answer.—There is no doubt that throwing a sack of mail upon the platform when the train is going sixty miles per hour should be damaging to the bees. In fact, it is a wonder that they do not get killed in the fall.

You can certainly rear your own queens. But you should have at least two or three good queens to breed from, one to furnish the queen cells and the others to furnish drones.

I suggest that you buy a book on queen-rearing and try it. Try it on a small scale at first. We used to rear all our queens. In this way you can soon have an apiary of pure bees. We prefer the Italians but some people prefer some other races.

INBREEDING

(1) Please tell me what you think of mating young queens with drones of the same hive.

(2) Does it produce inferior bees?

(3) Isn't this done often when bees swarm?

MISSOURI.

Answer.—(1) We know nothing positive about queens mating with their brother drones or with other drones. Some people claim that when a queen flies out for mating, the drones of the colony follow her in a tumultuous crowd. We never saw anything like that. But we believe that bees rear large numbers of drones, so they may find queens anywhere within two or three miles.

(2) Personally, I would prefer for queens to mate with drones from other colonies and we always aim to rear our queens and our drones from different colonies. In-an-in breeding is not desirable anywhere.

(3) No, I do not think there is any mating when the bees swarm, unless it is a second swarm, for it is the old queen that goes with the swarm.

QUEEN EXCLUDERS AND BEE ESCAPES

(1) Do commercial beekeepers use the queen excluder to keep the queen out of the supers during the heavy honeyflow?

(2) Do they use the bee escape or smoke to get the bees out of the supers when they want to remove supers for the extraction of honey?

MINNESOTA.

Answer.—(1) Some commercial beekeepers use the queen excluder to keep the queen out of the sections. We do not do it, because we think it interferes more or less with the work of the bees. However, there is no real harm in it and it may be used wherever the queen insists on going upstairs. If she has plenty of room below, she will not do it.

(2) The bee escape is very good to get the bees out of the sections and after trying it, I do not think any one will do without it. We also use it to clear the extracting supers of the bees. Put it on in the afternoon of the day previous to extracting.

ILLINOIS LOCATION

I am thinking very seriously of establishing an apiary in southern Illinois (Hamilton County) near McLeansboro. I have a farm there and am planning on going there to begin with about 100 colonies. From your knowledge of the location I wish to hear from you in regard to the desirability of the location. I believe the local markets are good as there are a number of coal mining towns of suitable size and within 30 miles distance to demand considerable honey.

MISSOURI.

Answer.—It is very difficult, if not impossible, to give an opinion as to the value in honey yield of a certain spot, unless one is acquainted with that spot. Southern Illinois is generally good, for honey, because of the large number of orchards and of pastures which produce white clover. If in addition the spot where you wish to locate, is supplied with sweet clover in the hillsides it will surely prove satisfactory.

If there is no sweet clover and there is some waste land, it is easy to get the sweet clover started by throwing it broadcast. Our part of the country has been helped considerably by sweet clover and the land on which it grows is benefited by its presence. Some people imagine that sweet clover is

difficult to eradicate, but that is incorrect. It may be destroyed in tilled land, the very first year, for it takes two years for it to come to maturity.

BEE LECTURES

I have been asked to give a talk or lecture on bee culture. But just how to begin is where I am at sea. So I'm asking you for advice. Would the lecture be any different in a farmer's grange or school of boys and girls over sixteen or in a public hall to all kinds of minds? Of course, I don't know it all—still I can learn more. But I run a large apiary and took in twenty-five tons in one season with help in California. Any advice will be thankfully received.

NEW JERSEY.

Answer.—The nature of the lectures to give should be in accordance with the minds of your audience. Of course you cannot talk to children the same as to grown people.

If you have a textbook on bees, you can readily find a text from some chapters of that book.

If you do not have a textbook, I would recommend that you secure the "Honeybee" by Langstroth and Dadant. You will readily find in it some text to speak from. Probably as good a subject as any is "how to handle bees properly."

If you have ever spoken in public, you will have no trouble. If you are not accustomed to speak in public, you must train yourself. Forget all about yourself and think only of your subject and of what the people want to know. Sometimes it is a good plan to speak only a little and then suggest that the auditors ask questions.

The Big Hive

By Edmond Fontaine,
Maryland.

Much has been made of the standardizing of sizes and parts of the ten-frame hive, which has come to be known as the Hoffman hive. The theory is good, as it enables all frames, tops and bottoms to be used interchangeably, and it saves much time and expense; but there is much to be said on the other side of the question since the Dadants took up the ideas of Moses Quinby and increased the size of the old standard hive. They use a brood chamber forty per cent larger, and a heavier wax foundation with the crinkly steel wire reinforcement in a vertical position. There are millions of them now in use.

The old "standardizing" method has resulted in the past in formulating a special technique of manipulation, and these rules and regulations and complications have produced trouble for the beekeeper. I mean that the smaller size standard hive makes it necessary to use two stories, and these entail much labor and special skill at the very time of the year when the owner is busiest.

C. P. Dadant found out many years ago that the so-called manipulation even when done by an expert, was of doubtful economy, and that much of it could be eliminated by increasing the size of the brood chamber and spacing the frames to one and a half inches in order to reduce the swarm-

ing fever in the spring. Dadant calls his plan the "let-alone method" of swarm control, but that doesn't mean that he lets his bees take care of themselves. Having the brood all in the one story helps to solve part of the problem, but the main point is that the larger unit produces a larger per cent of profit (surplus honey) due to more room and cuts costs at the time when labor is most valuable.

Now we come to the special needs of the amateur beekeeper, and we soon see that the large hive is far the best for him. The only argument against it is the few cents extra cost of the larger type hive. It winters better, and the bees get started earlier, as the food is stored close over the heads of the cluster, and the larger unit keeps a more even temperature than a small hive. Years ago it was discovered that the improved queens need a much larger comb surface than was estimated by the old bee masters, as a good queen can lay as many as 60,000 eggs within the incubation period of twenty-one days. In the spring the crowded condition of the smaller standard hive has much to do with the swarming fever, and experience has shown that over half of it does not happen in the large hive. When it does happen, the swarm is larger and more valuable, and the large hive still has enough bees left to work. Change the queen every two years as a matter of business and to prevent swarming, and eliminate the excluder. Set the large hives at least seven feet apart, facing southeast. Don't boast of how many hives you have, but of how good they are, and what surplus you make.

Another point which Mr. Dadant has not emphasized is that the "let-alone method" is preventive of American foulbrood. The larger unit set far apart (fewer in number), natural swarming, no queen excluders to carry infection and manipulation reduced over half mean fewer chances of introducing the infection. It is only necessary to open the brood chamber two or three times a year to inspect for disease, change a queen, and take out the drone combs.

Conscience Plays No Favorites

What is a Bee to a Beare, or a Mouse to an Elephant? and yet if a Bee fasten his stinger in the nose of a Beare, or a mouse creeper up the trunk of an Elephant, how easily do so little creatures torment the greatest. Certainly the proudest of men have some tender parts into which a sting may enter. The conscience is as sensible of God's displeasure in a Prince as in a beggar.

—From an early writer.

W. H. Hull,
Virginia.



Comb Honey Management for Sweet Clover

By J. W. Braithwaite,
Manitoba.

The second article on comb honey production in northern sweet clover by J. W. Braithwaite. The first one appeared in July. This takes us through the flow.

Manipulation of the Hive

RIGHT at this point is where a lot of beginners, and also some who should know better, fall down seriously, and we are all familiar with the beekeeper who is always following after his bees instead of making provision for them just one move ahead, and then wonders why he gets such poor results. It is a common thing to run across colonies of bees confined to the one and only brood chamber until far too late in the season.

As soon as the hive is in the condition just described, it is time to give the bees a super of drawn combs if same is available if not, a super of foundation will have to do. Do not use queen excluder, but allow the queen the unrestricted use of both chambers. As soon as she is ready she will ascend into the upper chamber and in the course of three or four weeks both chambers should be boiling over with bees.

This brings us practically to the beginning of the honeyflow. So far our endeavor has been to have the bees in the strongest possible condition right at this time. If we have succeeded, the battle is half over and we should experience no difficulty in obtaining our comb honey.

About the first of July (earlier where yellow sweet clover is grown) our great honey plant, sweet clover, is usually coming nicely into bloom

and from now on the beekeeper will be busy keeping pace with the bees, anticipating their requirements, directing their efforts and keeping them supplied with the necessary room in the way of fresh supers as they need them.

As soon as the sweet clover honeyflow is on in real earnest and having decided the colonies which are strong enough to produce comb honey, it will be time to provide the first super of empty sections.

Supering

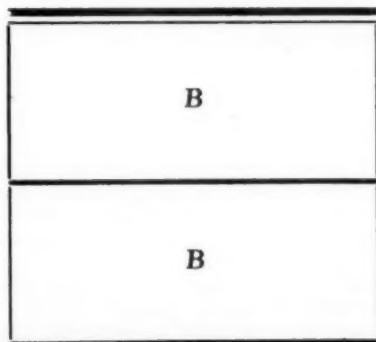
The first super should contain two shallow frames with drawn comb, one at each side, six hanging section holders each with four sections and seven hanging fences as already described in the first article. If frames of drawn comb are not available the first season, foundation may be used. These frames serve as starters and it is surprising what a help they are in getting the bees to take to the sections promptly and what an effect they have in ensuring that the sections are properly filled. This first super is placed between the two brood chambers. Raise the top brood chamber, put it to one side, place the super of sections immediately on top of the original brood chamber, place a queen

excluder on top of the super of sections and replace the second brood chamber on top of the excluder. Only put one super of sections on at one time except under very exceptional circumstances.

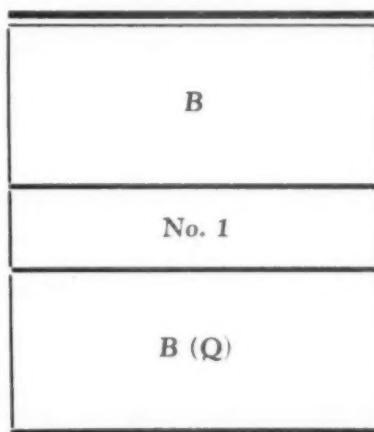
If these directions are followed and the colony is strong with a good flow of honey, no difficulty should be experienced in getting the bees to occupy the sections at once.

In putting the super on in this way, it is not necessary to bother to look for the queen unless one has the time to do so. This can be left until the next visit, four or five days later, when the location of eggs in either brood chamber will determine the position of the queen. If she is in the top, she should now be placed below or the two chambers may be exchanged.

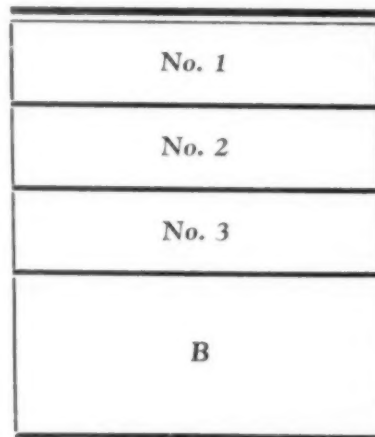
At this time, all queen cells should be cut out and as the young bees emerge from the top super, it will be converted into a super for surplus honey. This is a grand time for starting baby nuclei for queen rearing if one desires as some of the supers that have been without queens for almost a week will be found to contain the very choicest of cells.



Before the flow, two bodies for brood.



The first super between the two brood bodies with excluder above the super.



Added supers given below at first. Finished honey removed as rapidly as possible. New supers on top toward end of flow.

With reference to queen excluders, you will note that I favor placing the excluder on top of the comb honey super because I find queens will rarely go **into** sections but have no hesitation in going **through** them. By putting the excluder over the sections, we prevent the queen from going through and at the same time leave the sections free and of easy access to the workers. You may sometimes find a little brood in an odd section or two but I have never experienced much trouble from this source and last season do not remember having a single section spoiled with brood. It might be all right to leave the excluders off altogether, but it is safer to have them on and nice to know that the queen is where you want her and not wandering all over the hive.

As soon as the foundation in all of the sections in the first super is drawn out, it is all right to raise the super and put another one below, continuing this process until the end of the honeyflow when any further supers given should be put on top of the unfinished supers instead of next to the brood chamber so that the half filled section will be finished first and the last to be given will not be used unless the bees require more room.

Removing the Supers

As fast as supers of sections are completed and capped over, they should be removed. The sooner they are removed, the better, before they have time to become travel stained or covered with propolis. I was amused at the remark of an acquaintance one time when he said "I don't know how you get the bees to fill the sections so nicely. Mine were on the hive all summer and they are not to be compared with yours." Exactly! The idea is to get them on at the right time and then, when finished, take them off as quickly as possible.

It is not good policy to keep the bees working on sections all season. When you have put on as many as you think they will complete without difficulty, let it go at that and if they require further room, give them drawn combs for extracted honey. It is not desirable to be left with a lot of half finished sections at the end of the flow as there is not much that can be done with them. On the other hand a half completed super with extracted combs presents no problem.

In this respect too, the beekeeper can do much to help the completion of sections by concentrating on the best finishing colonies towards the end of the flow. It is often desirable to take half finished sections from indifferent colonies and place them on good ones. This reduces the number of colonies engaged with sections and releases some of them for extracted honey production.

For taking off the honey the use of the Porter double exit bee escape is recommended. I would not care

to be without them. I have always kept enough to have one for each two hives in the apiary. Placed on in the middle of the day, the supers above will usually be clear of bees by the following evening. When using bee escapes, be sure the hive covers are tight or otherwise be careful to cover the sections with oilcloth or some other form of inner cover. It is very necessary as honey above an escape board is free from the protection of the bees, and is easy meat for robbers if they have the least access to it.

Swarming

We hear much about swarming troubles in the production of comb honey but I can honestly say that swarming no longer bothers us. We do not need to be seriously concerned about it. Whatever the reason, it is certain that with us a swarm is exceptional and we rarely see one. In the early part of June when colonies are approaching full strength, we naturally have to be watchful but once the brood chamber has been divided as explained, the first super of sections given, the queen located and cells removed, our troubles are over and we rarely go into the brood chamber again until fall unless we have reason to suspect that everything is not well with the colony.

Of course we keep young queens and see that they have plenty of room at all times. We give the workers a fresh super just as soon as those they have are fully occupied and swarming rarely seems to enter into their scheme of things at all.

Selling the Honey

Just one word on this and I am done. It has been my experience that nice, clean, attractive, well finished and well presented comb honey will almost sell itself and I have never had the slightest difficulty in disposing of my product.

Two things I would urge with all the earnestness at my command:

First:—Never market an unfinished or an unattractive section. I have seen sections covered with propolis, travel stains and specks and could not help feeling ashamed of the beekeeper marketing them. If you have such sections keep them at home and eat them or extract the honey.

Second:—Do not cut prices to make sales. If your product is good, hold it for the going price. If it is not good, keep it off the market rather than help to depress prices by offering it at less than the market price.

Let us keep our standards high. Our product is a wonderful gift of nature. Let us see that we do our part by keeping it clean and wholesome; by offering only the best; by putting it up in the most attractive manner possible.

Do Bees Gather Honey from Soy Beans?

By Cecil J. Lent,
Iowa.

FOR the past five years I have kept a yard of 75 to 100 colonies of bees on a farm where soy beans are grown extensively.

The soil is a light sandy loam, which according to agronomists is ideal for soy beans.

From eight to twelve acres were drilled in with a grain drill every year to be used as hay. These were the Virginia variety. From 25 to 30 acres were planted in rows 18 inches apart and cultivated. These were threshed for seed and were Manchú soy beans.

Both these varieties bloom about August 1st to 15th in this locality. The Virginia being a little earlier, more flowers, and inclined to creep like a vine. The Manchú bushes out and grows tall and stemy and has only half the bloom of the Virginia.

At this time of the year sweet clover has usually slackened down (Aug. 1 to 15) and so the bees worked readily upon any new flowers which bloomed. In four of the five years they were at work on the soy bean bloom, the other year hubam clover attracted them and they refused soy beans altogether.

For the first few days of bloom fully 75 per cent of the bees upon the blooms worked upon the Virginia or hay variety and fully 75 per cent of the bees returning to the hive carried pollen.

The scale colony record for the four years that they worked upon the soy beans showed little or no gain during these pollen gathering days and after the fourth day, when about 75 per cent of the bees carried honey and 25 per cent pollen, gained up to four pounds a day for four days and then dwindled down to nothing on the tenth day of honey gathering.

It was easy to observe in the fields that nearly all the bees worked upon the Virginia variety, the Manchú variety yielding very little honey or pollen apparently.

It was also easy to note that a bee covered as many as 25 blossoms for a load of pollen and as high as 53 for a load of honey.

I believe that after observing these findings it will be readily seen that soy beans are not a honey plant. While they are a small pollen source and yield some honey I should not class it as a mutual benefit plant like the clovers which benefit both the farmer and the beekeeper though soy beans are a legume plant and a great soil builder.



By G. H. Cale

HAVE you read the comments about foulbrood in this number? Let me add an observation. Perhaps it's a dangerous one but why be afraid of fact because it doesn't jibe with practice?

I have observed colonies to have disease which on microscopic examination proved to be American foulbrood, but the disease was only slight. The colonies were marked. Later the disease was not evident. Years went by without any further appearance of it.

What happened? Were these colonies able to overcome it? Did it later return after we had lost track of the colonies affected? Do we have disease in a larger per cent of colonies than we ever discover which never become infected enough to reach our attention? How much resistance do we now have? How much more would we have with breeding and experiments?

— o —

It's a freakish season. Locally the flow is light; a hundred miles away excellent, with practically nothing in between. To the west, 300 miles, fair. At much shorter distances, all the way from some honey to failure. We are in the dry belt; no rain, things burned up, corn coming to tassell too hot. It looks bad for the farmer. Some beekeepers will be blessed and others disappointed.

— o —

It seems to me as though supersedure were more common than ever this season. Every queen should be marked. All of ours are not. Anyhow supersedure cells are common. Yet we haven't had very many swarms, if any.

The whole question of requeening is under fire in a season like this. Colonies that have been requeened show little gain over colonies that were neglected and which may have their old queens or may have supersedure queens. No way of telling unless the queens are marked. I am for requeening but this year I am certainly put to it to prove it against natural supersedure.

— o —

A letter from Joe Marty, of Silverton, Oregon, remarks about the peculiar behavior of a colony that showed considerable intelligence. I quote:

"I had placed a hive with combs in the upper part of the bee yard to

be ready in case of emergency and also as a lure for any stray swarms. The combs had a sprinkling of newly gathered honey as a bait. As the bees were interested in the vine-maple, they did not rob this honey out.

"The weather was unsettled and I saw bees hanging about the entrance. They seemed to be guarding that hive. Could a swarm have gone into it?

"On examination I found a handful of bees inside and they had taken all the honey off the light colored combs and stored it in a couple of darker ones near the edge. I suppose this sounds 'fishy' but I shall risk it for publication.

"I might add that my bees have had the swarming fever worse than all my other years combined. I couldn't stop it. I removed the surplus honey, juggled the brood, put on extra supers, destroyed all the drone brood, gave more ventilation, removed sealed brood from the brood nest but it didn't work. Three-fifths swarmed or I was compelled to divide, even the ones having young queens."

— o —

This season brings forcibly to the front the limitations of location. I have two colonies at home that have stored about 100 pounds each, in a year when ten or more colonies in one place, not over two miles away, only gathered 50 pounds each. It is apparently a two colony year. Where is the limit?

Some commercial yards may have as many as 150 to 200 colonies in one place. A location that will support that many colonies year after year is pretty hard to find. The probable average for good territory is 75 to 100 colonies.

— o —

There are beekeepers making a living from apiaries averaging 25 colonies or less, producing 50 or 75 pounds per colony per year, and retailing their honey. Hundred pound, ten year average, commercial locations can be counted up on the fingers and toes.

— o —

There are plant and soil optimums for every major honey plant. Sweet clover on a loose lime soil like Illinois or Missouri loess at a high elevation is a honey plant without equal; at low elevations, it is less desirable; on closer soils, still less; and on acid

soil where liming is necessary it is at its worst.

Every plant then has its best condition of soil and altitude. In Oregon for instance, Mr. Marty, just mentioned, writes that the vine-maple at high elevation will yield well and at a lower level is not satisfactory. This is also true of sage, and being found true of other plants in the western country. The higher the elevation the better the yield.

Do Bees Damage Flowers?

Here is another instance of people finding fault with bees for going into the flowers. Do our bees damage the flowers in which they work?

This happened around Philadelphia, Pennsylvania:

Bees on Trial as Trespassers

Specimens of snapdragons and bees adorned the courtroom of Common Pleas Court No. 1, where Judge Harry S. McDevitt presides today, the occasion being the suit of Holmsbury horticulturalists against a beekeeper.

The bees were claimed to have trespassed into the nurseries causing damage to the blossoms and injuring the business of Herbert D. Allman and his son, Drue, of 8040 Rowland Street.

The beekeeper, Joseph Rexer, lives about a quarter of a mile from the nursery and his bees, according to the suit, visit the greenhouses causing damage claimed at \$1500.00 a year.

Drue Allman, a graduate of the New York State School of Agriculture at Cornell, testified that the bees are attracted by the scent of snapdragons and after their visit the flowers are unsuitable for sale, dying almost at once. He was asked to identify the bees which the defendants presented in jars but could not do so. He offered as evidence snapdragons which had been visited by the bees and others which had not.

Lawrence Meyers, a landscape gardener, testified that the cost would make the screening of the Allman greenhouses prohibitive and Mrs. Blanche Allman testified that she, her two sons, a maid and guests had been stung by the bees. Allman testified that he and seven persons employed in the greenhouses had been stung.

The Devil Has a Hand in It

"Bees when they assault a man strike fiercely at his face, the beauty of man; and principally in the face aims at the eye, the beauty of the face. Thus Satan, though he be malicious against all mankind, yet chiefly against those who . . . are most beautiful."

W. H. Hull,
Virginia.

Important New Book

In view of the vast number of books appearing every year it is a bit surprising that there are so few devoted to agricultural history. To celebrate the one hundredth anniversary of the organization of the New York Agricultural Society a new book has appeared. It is "A History of Agriculture in the State of New York" written by Dr. U. P. Hedrick of the Agricultural Experiment Station.

It is a large volume of 450 pages and contains numerous pictures of old time scenes. There is so much of interest that the reviewer finds it difficult to decide which portions to discuss. Among the very valuable chapters may be mentioned the one on Indian Agriculture and one on Country Life a Hundred Years Ago. Prior to the coming of the white man, the Indians depended upon maple sugar for sweetening. Beekeeping receives but scant attention, which is a bit disappointing in view of the very important development which took place in that state during the formative period of the honey producing industry. The statement is made that in 1670 "You shall scarce see a house but the south side is begirt with Hives of Bees, which increase in an incredible manner."

Much space is devoted to the horticulture of the region and well it may be since so much pioneer work in that field was done in New York.

The book is published by the State of New York and sells at a nominal price considering its extent. It can be obtained for \$3.00 plus express from the Agricultural Experiment Station, Geneva, New York.

By Their Wisdom Asses Are Known

At the Beginning of Things, when the World was young, the Donkey was esteemed by all the Tribes of Men as wisest of Animals. The good Sheik El-Sta-Shun-Air owned a great Herd of these sagacious Beasts, which was the Pride and Joy of his Life.

Other Sheiks from Miles around came to listen and marvel at the Wisdom of the Herd. At such a Time came even the Prophet himself—most learned and wise of all the Sons of the East. With much glowing of Pride, El-Sta-Shun-Air led him out to the Herd and said:

"Behold, O Prophet, the wise and talented Asses. Converse with them, test them, and see if they are not verily wiser than forty Trees full of Owls."

Then the Prophet addressed the Asses. "Let us test your Wisdom," said he. "Answer me this Question: What would an Ass require for a three Days' journey?"

And they counseled among themselves and then made reply: "For a three Days' Journey, O Prophet, any Ass should require six Bundles of Hay and three Bags of Dates."

"Very good," quoth the Prophet: "that soundeth like a fair and proper Price." Whereupon El-Sta-Shun-Air broke into loud Chuckles and said: "Did I not tell you they are passing wise?"

The Prophet answered, "Wait!" and he again addressed the Asses. "I have for One of you," he said, "a three Days' Journey, but I will not give six Bundles of Hay and three Bags of Dates for making it. Let him who will go for less stand forth."

And behold, they all stood Forth and all began to talk at once. One would go for six Bundles of Hay and two Bags of Dates. Then another for three Bundles of Hay and one Bag of Dates, until finally one especially Long-Eared Ass agreed to go for one Bundle of Hay.

Then spoke the Prophet, "Fool, you cannot even live for three Days on one Bundle of Hay, much less profit from the Journey."

"True," said the Long-Eared One, "but I wanted to get the Order."

And from that far-off day to this, Asses have been known as Fools, and Price Cutters known as Asses.

Jay Romun.

More or Less

Your editorial "More or Less" is very fitting. I am delighted to see you take this stand. Yet how do you dare? Who knows but the next ruling may be that of cutting off the heads of those who dissent?

Twenty years ago I came near being painted yellow by declaring the war was a rich man's war. Since then I have lain low although certain unpatriotic articles reach the press now and then where I do give vent to my personal feelings.

It's terrible to deprive the poor and to starve them while acres of land lay idle. Pigs are killed by the millions and all that under our present "Government."

J. H. Sturdevant,

Death of Edwin Ewell

We regret to learn of the death which occurred early in June of Mr. Edwin Ewell, of Ypsilanti, Michigan. Mr. Ewell had been a beekeeper for many years and an extension man as well in the state of Michigan. He was well known to all Michigan beekeepers and will be missed by the beekeepers of the entire state. Our sympathy goes to Michigan and to the Ewell family.

Colloidal Constituents of Honey

The January issue of "Industrial and Engineering Chemistry" contains a long article on colloidal constituents of honey and influence on properties and commercial value. The article is technical and not easy to read and understand fully by one without chemical training but it covers a very important subject for the honey producer. The authors, Paine, Gertler and Lothrop of the Bureau of Chemistry and Soils have been engaged in the study of this subject for some time and some of their conclusions have appeared in American Bee Journal.

The part played by colloidal substances in the promotion of foam and scum layers and in causing frothing and caramelization when honey is heated are discussed in the article. Equipment and methods for filtration are fully discussed also.

It is interesting to note that the authors are now occupied with the development of a method for removing colloids and clarification of honey which it is hoped will prove commercially feasible.

Process Tax on Cane Products May Help Beekeepers

By Robert M. Mead,
Vermont.

Recently the Federal Government announced that it had completed plans for a processing tax on cane and beet sugar. The proceeds of this tax are to be used to pay cane and beet growers bounties for decreasing acreages.

Although there is no direct benefit in this for the honey industry it is to be expected that there will be a rise in the price of white sugars to a point where honey will be benefited by price comparison.

Just what effect the tax and reduction in acreage will have on the retail price of white sugars is not known. The sponsors of the plan hope, of course, to secure much better prices for cane and beet growers but just how this can be done without bringing the retail price up to where the buying public will turn to substitutes is not known. A careful study of the plan convinces one that it is merely another brain trust infant that may perhaps prove an unlovely handful in time to come.

To the beekeeper, however, it holds out nothing but encouragement. As the price of white sugars rises all the more effort should be made to market honey to families as well as to interest manufacturers in grades suitable for candy making or baking. It is the beekeepers' opportunity to make the American home-keeper a honey consumer. Not merely for the present but for time to come.



National Honey Week

Do not forget—November 11th to 17th. The real success of this important program depends on the local activity. Honey producers, associations and state departments will need to sponsor National Honey Week if it is to accomplish its purposes. Try to interest everyone you can in it.

Southern Conference—Valdosta December 17-19

Plan ahead for this big event. The combination meeting of the Southern Conference and American Honey Institute—American Honey Producers' League at Valdosta, Georgia on December 17-19. This is going to be one of the biggest meetings that has ever been held in the United States.

Ohio Beekeepers' Field Meeting, August 9 and 10, Columbus, Ohio

The Summer Field Meeting of the Ohio Beekeepers' Association will be held August 9 and 10 at Columbus, Ohio. The first day will be devoted to talks by leading beekeepers and entertainment, while the second day will be devoted to a tour and demonstrations. On August 9, the beekeepers will meet at 9 a. m. at O'Shaughnessy Dam fifteen miles northwest of Columbus on Route 257. The meeting place is a pleasant little grove overlooking the O'Shaughnessy Dam. Free camping grounds for those who enjoy camping, free parking, a nearby restaurant, a sanitary swimming pool, and most important of all the Columbus Zoo are some of the conveniences and attractions for beekeepers attending the meeting. Interesting and instructive talks will comprise the day's program, while the evening is set aside for a beekeepers' supper at Wyandotte Inn opposite the Columbus Zoo at O'Shaughnessy Dam.

A committee has made arrangements for rooms, so those who do not care for camping will be sure of accommodations.

The beekeepers will meet for the second day's program at 9 a. m. at the College Apiary. The tour and demonstrations will take in several large commercial apiaries west of Columbus.

W. E. Dunham,
Sec'y Ohio State Beekeepers' Assn.

The Thirty-Third Annual Meeting in Kansas State, August 5

The thirty-third annual meeting and basket picnic of the Kansas State

Beekeepers' Association will be held on West Tenth Street, Topeka, Kansas, one-half mile east of Gage Park on Sunday, August 5th. It is hoped that all beekeepers and their friends will come. There will be talks on beekeeping by a number of prominent beekeepers, also musical entertainment.

Geo. Pratt,
Secretary, Kansas.

Annual Empire State Honey Producers' Association, White Sulphur Springs House, Berne, N. Y. Saturday, August 11

This is the big New York picnic to be held this year at White Sulphur Springs House at Berne, Saturday morning, August 11th, beginning at 9:30. This is a wonderful place for a picnic, fire place, tables, swimming pool, bath houses. Hot lunches will be served for 40 cents, dinners 60 cents, with a stand serving sandwiches, ice cream and so on. The owner has sixty colonies of bees. Just the right atmosphere.

The regular program will consist of short talks by prominent men; with games and contests, horseshoe pitching, smoker lighting, games for women, baseball game. Prizes for all contestants. There will be a tour on Sunday morning visiting bee yards and other places of interest. Details to be arranged at the meeting.

Berne is on Route 43 west of Albany, in the Helderberg Mountains.

E. T. Cary,
Secretary-Treasurer.

Beekeepers Meet at Grand Forks

That the beekeeping industry of Manitoba is developing soundly and is being safeguarded was attested by J. D. McGregor, Lieutenant-Governor of Manitoba in an address before the beekeepers attending the 12th annual summer meeting of the North Dakota Association at Riverside Park at Grand Forks, June 22nd.

Mr. McGregor pointed out that Canadian beekeepers have many things to be thankful for. Mr. McGregor is owner of about 800 colonies of bees in Manitoba and possibly the finest herd of Angus cattle in North America.

Prof. Floyd, Provincial Apiarist of Manitoba, spoke to the beekeepers about "Changing Trends in Manitoba Beekeeping" and pointed out that beekeepers of his province have found it advantageous to become members of associations and share in the

benefits. He presented figures to show that in one season Manitoba beekeepers saved more than \$20,000 by purchasing honey containers through their respective association. He reported that the Canadian government had imposed a two-cent per pound tax on sugar, which will result in an increase in the price of honey.

The meeting ended with games and a good time.

Bakers' Helper to the Front Again

Through the courtesy of L. K. Slama of Bakers' Helper published in Chicago every other week, a magazine of bakery practice and management, we are in possession of a galley for their issue of July 28 entitled "Floral Honey and Honeydew Honey" which describes for the benefit of the baker these two different kinds of honey. It also gives formulas for the use of honey in cake making. A shorter item describes the composition of honey, giving a fair idea of the value of honey in the bakeshop. Altogether a fine boost. Call the attention of your baker to this issue, the issue of July 28 of Bakers' Helper. All progressive bakers have this magazine.

Honey Cookery

One of the best publications relating to honey in the kitchen is "Florida Honey and Its Hundred Uses" by Dr. Waldo Horton and Isabella S. Thursby. It is published by the Florida State Department of Agriculture at Tallahassee. It contains fifty-five pages, is printed on enamel paper and illustrated with photographs of some of the principal honey plants of the state.

The book contains a surprising number of suggestions as to ways in which honey can be used to add to the variety of foods brought to the table. Florida beekeepers will do well to see that it is generally distributed among their customers.

The Way Adam and Eve Gave Castor Oil

Take one pound of figs, separate them and place in a dish. Cover them with Castor Oil and allow to boil until they are plump. To this add the juice of one lemon and a tablespoonful of honey. Allow to simmer for fifteen minutes then drain off the oil and pack in fruit jars. One fig is about the equivalent to one tablespoonful of Castor Oil. This is a most delightful way of taking the nauseating stuff, especially for children. If Adam and Eve didn't take it this way, it wasn't because figs did not grow in the garden. Chas. E. Phillips,
Ontario.

Yancey Hustler Queens
 3-Band Italians
 —BRED FOR BUSINESS STRICTLY—
 1 to 9, 70c ea.; 10 to 24, 65c ea.; 50 or more, 50c ea.
 Caney Valley Apiaries, Bay City, Texas

Mott's Northern Bred Italian Queens *Practically Non-Swarming Not "hoocy"*
 August, September: 75c each; 25, 70c each; 50, 65c each; 100, 60c each. Fair to good breeders, \$2.00, \$3.00, \$5.00 each.
E. E. MOTT & SON, Glenwood, Mich.

Ellison's Queens

Perfection of beauty, quality and service. Book your order in advance, and get them on time. Most orders are shipped within 24 hours after receipt. Code prices for balance of season are as follows: 1-9, 70c; 10-24, 65c; 25-49, 55c; 50-99, 50c. Guarantee no disease and quick service.

C. G. ELLISON,

BELTON, S. C.

JOSEPH DUSEK COMPANY
 726 WEST RANDOLPH STREET, CHICAGO.

HONEY WANTED
COMB AND EXTRACTED


Write for Rubber Stamp, shipping tags.
 (Reference, First National Bank)

Mountain Gray Caucasian Queens

10 Years' Selective Breeding

Are easy to handle, good honey gatherers, they are pleasing others we believe they will please you. Untested: 1 to 9, ea. 70c; 10 to 24, ea. 65c. Select tested, \$2.25. All guaranteed to please.

BOLLING BEE CO. :: BOLLING, ALA.

None Cheaper  **None Better**

When all queens are the same price why not have the best? They will make a big difference in your honey crop. August is the ideal month to requeen. We are prepared to make prompt shipment on all orders.

1 untested, 70c; 10 or more, 65c each; 25 or more, 55c each; 50 or more, 50c each; 100 or more, 45c each; 250 or more, 42½c each.

Certified and Accredited by Alabama Department of Agriculture.

J. M. Cutts & Sons :: Route 1 :: Montgomery, Ala.

WANTED -- HONEY

CARLOADS OR LESS CARLOAD QUANTITIES

White or Extra Light Amber Grading

Send us samples and best price, freight allowed New York.

HONEY PACKERS, Inc.

230 Park Avenue

New York City

DEPENDABLE ITALIAN QUEENS

Our Summer and Fall flow has begun, making natural conditions ideal for rearing extra fine queens.

INSTANT SERVICE

Orders received by noon are shipped same day.

PRICES FOR BALANCE OF SEASON:

| | | | | | |
|-----|-------|-------|-------|---------|-------------|
| 1-9 | 10-24 | 25-49 | 50-99 | 100-249 | 250 or more |
| 70c | 65c | 55c | 50c | 45c | 42½c |

CALIFORNIA APIARIES

J. E. WING, COTTONWOOD, CALIFORNIA

Crotalaria, As a Soil Builder, a Promising Honey Plant in the South

By Frank Van Haltern
Georgia

For many years the United States Department of Agriculture and experiment stations of the southeastern states have been seeking legume crops suitable for hay or soil building and adapted to soils deficient in lime. Developments along this line should be watched with interest by beekeepers in this section since one or more of these newer crops may be destined to play a great part in the development of honey regions in the Southeast.

Crotalaria, one of these new crops, is being tried out rather extensively in Florida, the coastal plain region of Georgia and to some extent in other states. It makes a vigorous growth of from three to five feet in height and is an excellent green manure crop but is not palatable to livestock. This is a serious drawback to the general adoption of this crop. However, the Florida Experiment Station is now making tests of varieties of Crotalaria for feeding purposes.

Two species, *Crotalaria striata* and *C. spectabilis* are being recommended for soil building, the last being the larger and better of the two. In late summer and fall, *Crotalaria spectabilis* has a solid mass of large, yellow, pea-like flowers covering the upper half of this plant. It is often grown in flower gardens as it is quite attractive when in full bloom.

Except in the very driest weather, the flowers seem to be alive continuously with the activities of honeybees, bumblebees, wasps and sometimes flies. Bumblebees alight upon freshly opened flowers and vigorously thrust their long tongues down between the wing petals. Seldom do they visit a wilted flower. Honeybees, on the contrary, seem to prefer the wilted condition of the petals permits them to be separated so that the nectar can be reached. A honeybee is nearly lost from sight in one of these wilted blossoms. Occasionally a bee will visit a fresh blossom and struggle to reach the base of the flower apparently obtaining some nectar.

Bees also visit extra-floral nectaries at the bases of the peduncles or flower stems. This is especially noticeable on *C. striata*, bees and wasps passing quickly the length of a flower spike visiting each nectary in succession. Bees working nectaries and flowers were caught and found by squeezing to be loaded with nectar.

Honeybees also visit the wilted flowers to gather pollen. On one occasion a bee was seen to alight upon a wilted clump of petals hanging over

a tiny, newly formed pod. After a struggle lasting nearly two minutes, it finally separated the petals and began actively collecting pollen. Quite large masses of pollen are held in the pocket formed by the keel.

I note that from 1929 to 1931 the Florida experiment has distributed seventeen thousand pounds of seed of *Crotalaria spectabilis* to Florida farmers. This amount would plant more than one thousand acres. It is also being planted to some extent in pecan orchards in South Georgia. It volunteers readily and I have seen a perfect stand from seed shattered the fall before. It would seem, therefore, that there is a considerable acreage in this crop and it is to be hoped that some beekeeper located near fields of *Crotalaria* will soon report on its honey yielding ability.

[This plant has already been reported upon favorably in the American Bee Journal, a couple years ago. —F. C. Pellett.]

Those Beautiful Yellow Flowers

We are indebted to John Kneser, of Hales Corners, Wisconsin, for the clipping sent in to the Milwaukee Journal by Martin Borgen, of Dallas, Wisconsin, in which Mr. Borgen defends the idea that thousands of acres which measure the roadsides of the country should be planted with things which should benefit the public. He would include the deep cuts and suggests the planting of dandelions in them.

The newspaper goes on to comment that not many Wisconsin residents would appreciate the dandelion which they think a pest, and gets into the lawns and ruins them.

Yet, the clipping continues, once a delegation of Japanese officials visiting Milwaukee were taken through the city's parks. They expressed polite interest in the formal plantings but again and again expressed about the "beautiful yellow flowers" growing in the lawns. One of the Japanese finally asked permission to uproot a few of the dandelions to take to Japan.

Then the Journal defends the use of this beekeeper's plan for roadside planting because it considers that the roadside cuts would look better covered with a yellow bloom and the foliage of dandelion than with nothing. The dandelion forms a good road cover. It roots so deeply that it holds the soil. It keeps the rains from washing away the surface.

In any event as Mr. Borgen suggests, much more could be done with our roadsides than we are now doing. Apple trees, crab apple trees, wild plums, native shrubs, and any other native green things would go well with road improvement.

Wanted White Extracted Honey

Send Sample and best price Frt. Paid to Cincinnati, O.

THE FRED. W. MUTH CO.



Transparent Honey
Jars In Two Styles

WRITE FOR SAMPLES AND PRICES

Crystal clear jars of strong simple construction in four sizes—Individual, Half Pound, One Pound and Two Pounds. And the new Bee

Hive jars, attractive for table use, with definite label space. In Half Pound, One Pound and Two Pound sizes. Gold or white screw caps.

HAZEL-ATLAS GLASS CO.

WHEELING, W. VA.

SALES OFFICES IN ALL PRINCIPAL CITIES



Queens WHY NOT NOW? Queens

Try our honey gathering strain, pure Italian stock. They are sure to please you. Untested queens, 70c each; 10 to 24, 65c each; 25 to 49, 55c each; 50 or more, 50c each. 2 lbs. queenless packages, \$1.45 each f.o.b. shipping point. Other packages at code prices. Write us.

HONEY BEE APIARIES, Sandwich, Illinois

Jensen's "Magnolia State" Three-Banded Italians RIGHT NOW SERVICE

It is our policy to treat everyone fairly, and to make no claims we cannot substantiate. You have a right to the truth in advertising as well as in the quality of the product itself. Our customers' recommendations speak louder than our own ballyhoo. Our business is bees and queens; successful because through our efforts to improve our strain, you are succeeding with them.

Ashcroft, B. C., Canada.
July 6th, 1934.

"Dear Sir:

Received fifteen queens shipped on the 2nd. Queens and all attendants arrived alive. You are the promptest shipper of queens I have ever tried. Have bought queens from you off and on for past ten years and they have averaged well. I may have to increase the original order yet."

Prices balance of season: Select Untested: 1-9, 70c; 10-24, 65c; 25-49, 55c; 50-99, 50c; 100-249, 45c; and 250 or more, 42½c each. Package bees at Code prices.

JENSEN'S APIARIES, Crawford, Miss., U. S. A.

Attractive New Labels . .

For **SUNBURST JARS** (page 294)

For **BEEHIVE JARS** (page 327)

These fit exactly into the label spaces on either kind of jar. Write for samples to see how well they look and for prices.

American Bee Journal : - **Hamilton, Illinois**

MERRILL'S

Quality



Queens

42½c Each

In Quantities of 250 or More

Requeening Time **Our 25th Year**

CHECK OVER YOUR BEES and replace all old queens with **MERRILL'S QUALITY QUEENS**. You will profit by using them. We have reared about **HALF MILLION QUEENS**, and we are trying to make them better for you each season. Requeen now and get a larger crop next season.

QUEEN PRICES

Italian Queens—1 to 9, 70c; 10 to 24, 65c; 25 to 49, 55c; 50 to 99, 50c; 100 to 249, 45c; 250 or more, 42½c.

MERRILL BEE COMPANY

Mississippi's Oldest Shippers

Bucatanua, Miss.

Mention the American Bee Journal When Writing Advertisers

A Valuable Garden Book

A concise dictionary of gardening is a very useful reference for every plant lover. The best thing of this kind with which the writer is familiar is "Hortus" by L. H. Bailey and Ethel Zoe Bailey. The name "Bailey" on the title page of a garden book carries the stamp of authority throughout the English speaking world and assures the reader that the subject is covered thoroughly.

For nearly twenty years the writer has used the Bailey Cyclopaedia of Horticulture for constant reference in garden matters and this book furnishes an ideal supplement to those volumes. More than twelve thousand species of plants are included in Hortus. The descriptions are of necessity brief but essential facts are here. It tells something of the history of the plants, their uses, soil requirements and other items of importance.

It is a ready reference book for all who work with plants. It gives brief descriptions, correct names, notes on culture and propagation for every group of plants in common cultivation in the United States and Canada.

This book which has required five years in its compilation should be in the library of every horticulturist and garden lover. The price is \$5. Published by the MacMillan Company, Fifth Avenue, New York.

Bees Have Some Faults

Every now and then we are importuned to believe that bees are living examples of all that is idealistic. This attitude is based, no doubt, on the theory that we get along better by looking only at what is good. But goodness or the lack of it is sometimes a question of relative values. For myself, I consider a fair balance of truth as greater good than idealism distorted to present only certain conventional virtues. The early writers did not go to such lengths in regard to the virtues of bees, as shown by the following from one of them:

"Bees are the most dangerous enemies to Bees, they have many other but none so hurtfull. . . . The greatest danger that befalls the Bees, comes where it should least come, from the Bees themselves."

W. H. Hull,
Virginia.

Artificial Honey

George W. Stone, of Niagara Falls, New York, sends us a clipping from a drug magazine telling how to make artificial honey. In the days when honey was scarce and high in price there was some reason to offer substitutes. Now that honey is abundant and cheap it is hard to see why anyone should be interested in trying to make artificial honey when the real thing is so easy to get.

Sticky, Pasty— Cheaply, Quickly

Much has been said on this subject of paste. But how much sticks—in the beekeeper's mind? Far be it from me to impose upon anyone a new paste formula. However, if you are interested in a quick way of making a sticky paste cheaply, then this is your meat. Use the same proportions, and follow the simple directions in the making of any amount of this paste:

Dissolve one level teaspoonful of lye in one-half pint of water. Stir two ounces of flour (wheat) into one pint of water. This is best accomplished by stirring the water in a suitable vessel with a Dover egg beater, while the flour is slowly added. When the latter mixture is smooth pour the lye solution into the flour mixture, slowly, and stir while doing this. Use a stick for stirring. This batch of paste, almost a quart, can be made in about two or three minutes. If it is kept from drying up it will keep a long while. Too little flour will make the paste too thin, and, likewise, too much flour makes it too heavy-bodied. Use NO ALUMINUM utensils in making the paste; the lye, you know.

H. A. Insinger,
Missouri.

If We Had the Money

In the popular news articles going around recently in the "Believe it or not" series, Harry Harberg, of Halstad, Minnesota, sends us one which gives a picture of a man with either a swarm of bees or bunch of money under his arm and it is entitled "A Swarm of Bees was called down from the air by rattling money." Mr. Harberg aptly says, "If we had something to use for money."

But then if we did have the money, why not buy a few packages from the South rather than run the risk of losing our cash by throwing it indiscriminately up into the air, trying to bump the queen and force the swarm to the ground.



QUEENS OF THE BEST QUALITY

With our queens you can reduce swarming. With our queens you can reduce winter loss. Our bees have never been exposed to disease. Prompt shipping and high quality make it pleasant for our customers. Untested, 1 to 9 queens, 70c each; 10 to 24 queens, 65c each; 25 to 49 queens 55c each; 50 or more queens, 50c each. Tested queens double the price of untested.

TAYLOR APIARIES, Luverne, Ala.

STOLLER'S Thrifty QUEENS BRED FOR HONEY PRODUCTION

Large — Beautiful — Gentle — Gogetters

PRICES—Select Untested: 1 to 9, 70c; 10 to 24, 65c; 25 to 49, 55c; 50 and up, 50c.

Pure mating, safe arrival and satisfaction guaranteed.

A Strain Worthy of Its Name.

THE STOLLER APIARIES, LATTY, OHIO

Wanted Amber Extracted Honey

Send Samples and best price Frt. Paid to Cincinnati, O.

THE FRED. W. MUTH CO.

TENNESSEE BRED QUEENS

THREE-BANDED ITALIANS ONLY

Our Motto:—Utility, Beauty and Satisfaction to the Buyer.

We ship only young laying queens of the best type that experience and careful selection can produce. We produce the queens for our own northern apiaries; and we guarantee them to please you.

| | | | | | |
|------------|--------------|--------------|--------------|----------------|---------------------|
| 1-9 70c | 10-24 65c | 25-49 55c | 50-99 50c | 100-249 43c | 250 or more 42½c |
|------------|--------------|--------------|--------------|----------------|---------------------|

Tested, and breeding queens, packages and nuclei by special agreement.

Queens for export will be carefully packed in long distance cages, but safe delivery is not guaranteed, except in North America.

SMITH APIARIES

Successors to late John M. Davis.

SPRING HILL, TENN.
Wallace R. Smith
Queens

CAMERON, ILL.
Glenn L. Glass
Comb Honey

GRAND RAPIDS, MINN.
Marshall K. Smith
Extracted Honey



WALTER T. KELLEY

I will accept in advance settlement

WAX - HONEY

or what have you? in trade for my bright Italian Queen bees.

Approximately two pounds of good quality beeswax or a gallon of clover honey, prepaid to my station will buy a queen.

Do not ship me honey or wax without first sending me a sample, stating the amount, how packed, etc., and getting my exact offer.

Wax or honey received either at PADUCAH, KENTUCKY or HOUMA, LOUISIANA. Write me at either address.

CASH PRICES ON QUEENS ARE: 1-9, 70c; 10-24, 65c; 25-49, 55c; 50 or more, 50c.

Paducah, Kentucky THE WALTER T. KELLEY CO. Houma, Louisiana
(Formerly operating as The Gulf Coast Bee Co., Houma, Louisiana.)



LADY-LIKE CAUCASIANS

Queen Prices

| | | | |
|-----|-------|-------|-------|
| 1-9 | 10-24 | 25-49 | 50-99 |
| 70c | 65c | 55c | 50c |

CAUCASIAN APIARIES Brooklyn, Ala.

Our Mating
Guarantee
Is Your
Protection

The stock is true. The breeders are well selected. Every queen is guaranteed to be mated to a Caucasian drone. Send for free Caucasian circular.

CHOOSE LABELS WISELY

YOU CAN'T GO WRONG WITH A-B-J LABELS

They sell honey and are priced right. Send for Complete Catalog.
AMERICAN BEE JOURNAL, HAMILTON, ILL.

THINGS YOU SHOULD KNOW

We are in the queen and package business to make an honest living. We have no side line to distract our attention.

We are not the best shippers in the South, but we think we are as good as the best. If you are in doubt as to this statement, try our twenty-four hour service on queens and package bees for this month.

If we fail to render this service, your money will be returned same date received. This service does not include Sunday.

If you have not been receiving this service, give us a trial and be convinced.

We feel that we can make this guarantee by anticipating your needs months in advance.

PRICES FOR BALANCE OF SEASON:

QUEENS (Select Untested): 1-9, 70c ea.; 10-24, 65c ea.; 25-49, 55c ea.; 50 or more, 50c ea.

PACKAGES with Queens—Two-Pound: 1-9, \$2.15, 10-49, \$2.05; 50-99, \$1.95; 100-249, \$1.75. Three-Pound: 1-9, \$2.80; 10-49, \$2.70; 50-99, \$2.60; 100-249, \$2.34.

SHAW & HOMAN, SHANNON, MISS.
WE BREED THE THREE-BANDED ITALIANS ONLY.



True LABEL CHARACTERS

Designs that compel attention. Colors that blend and please. Wording that makes sales.

Our Labels and Leaflets meet these requirements at reasonable prices.

Printing Honey-Selling Helps is our specialty. Send for free samples.

AMERICAN BEE JOURNAL, HAMILTON, ILL.

OUR QUEENS

Are Giving Satisfaction

"The queens I purchased of you last spring are simply wonderful. Their bees are beautiful, strong and the finest honey getters by far I have ever had."—B. O. West, Rochester, Indiana.

"Last fall I purchased my first queen from you and her colony produced more honey than all my other colonies and her bees are the most gentle of the lot."—Ralph E. Gibson, Westville, New Hampshire.

"The bees produced from your queens are certainly beautiful to look at, enjoyable to work with, and wonderful honey getters."—Brodie E. Higley, Underwood, N. Y.

YOU WILL LIKE THEM TOO

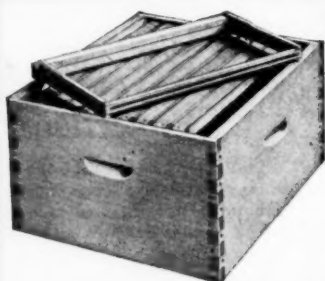
Prices: Untested, 1 to 4, \$1.00 each; 5 to 9, 95c each; 10 to 24, 90c each; 25 to 49, 85c each; 50 to 99, 80c each; 100 or more, 75c each. Breeding queens, \$7.50 each. Service guaranteed. Certificate of health furnished with each shipment. We accept honey in exchange for queens allowing twelve queens to each case of 120 pounds white extracted honey, freight prepaid.

Write for our free BOOK ABOUT BEES.

JAY SMITH

ROUTE FIVE

VINCENNES, INDIANA



Accurately Made Bee Supplies for Western Canada Beekeepers

We Manufacture

LOCK CORNER BEEHIVES
ALL-WIRE QUEEN EXCLUDERS
SLOTTED BOTTOM BAR FRAMES
"WHIRL DRY" CAPPINGS DRIERS
COMB OR CHUNK HONEY EQUIPMENT
EXTRACTORS, FROM 2 TO 50 FRAMES

Catalogue free.

S. P. HODGSON & SONS
NEW WESTMINSTER ./. BRITISH COLUMBIA

When in doubt, refer to advertisers in the American Bee Journal . . . When writing to them, mention that you saw their ad in this journal . . . They too will appreciate it as well as we.

QUEENS

Guaranteed good layers. All queens mailed promptly.

Prices as follows—Postpaid

| | |
|-------------|-------------|
| 1-9 | 70c ea. |
| 10-24 | 65c ea. |
| 25-49 | 55c ea. |
| 50-99 | 50c ea. |
| 100-249 | 45c ea. |
| 250 or more | 42 1/2c ea. |

Pure mating. No disease and Satisfaction Guaranteed.

THE CROWVILLE APIARIES
ROUTE 1 WINNSBORO, LOUISIANA

Flower Garden Enthusiasts



Send 10c for sample copy FLOWER GROWER—regular price 20c. A garden magazine devoted entirely to flowers and gardens. Invaluable information in every issue. Splendidly printed and well illustrated. Special introductory subscription—7 months \$1— a 40c saving. **THE FLOWER GROWER**
102 N. Broadway Albany, N. Y.



CAUCASIANS

Extra gentle, prolific, long tongue, little swarming, dependable workers, —10% to 40% ahead of Italians. Foundation stock from the mountainous province of Terek, Caucasus.

CARNIOLANS

prolific at all times, very gentle, best of winterers, build beautiful white combs, most excellent workers. My Carniolan queens headed colonies producing an average of 435 pounds per colony over whole year.

Lowest Code prices on queens. Untested queens: 1 to 9, 70c each; 10 to 24, 65c each; 25 to 49, 55c each; 50 or more, 50c each.

Both races withstood the past severe winter much better than Italians. Both races build up more rapidly during the unfavorable springs of our Eastern States and are ready for the early flow. Ask for free circular.

ALBERT G. HANN

GLEN GARDNER :: NEW JERSEY

Italian QUEENS Carniolan QUEENS Caucasian QUEENS

Reared in different yards several miles apart. Can also send first cross of them.

Code Prices: 1 to 9, 70c each; 10 to 24, 65c each; 25 to 49, 55c each; 50 to 100, 50c each.

RONALD KIRK

ROCKTON :: PENNSYLVANIA

A GOOD RULE TO GO BY

Buy your bees and queens from Alabama Apiaries, Box A, Mt. Pleasant, Ala. Pure Italian queens and bees of select quality. Accredited by Alabama Dept. of Agriculture. We support the American Honey Institute. Our equipment and experience insure prompt delivery and entire satisfaction. Queens: 1-9, 70c; 10-24, 65c. 25-49, 55c; 50 up, 50c. 2-lb. pkg. with queen, \$2.15. 3-lb. pkg. with queen, \$2.80. For queenless pkg. deduct price of queen.

Choice Bright Italian Queens

Queens that are a pleasure to work with and be proud to own. Requeen with stock that has been bred and selected in the North the past 31 years for good winterers, hustlers, gentleness and fine color. 85c each; 12 queens, \$9.00. Breeders, \$6.00.

Emil W. Gutekunst, Colden, N. Y.

Crop and Market Report

Compiled by M. G. Dadant.

For our August number, we asked reporters to answer the following questions:

1. How is the crop so far?
2. Prospects for balance of season?
3. What is general feeling as to where the market should start?
4. Any demand as yet?

Crop Compared to 1933

In the New England States, the crop compares very favorably so far with 1933. In New York where there was a good crop last year, conditions are extremely spotted this year. Even in the same localities owing to better handling of the bees in winter or to local rainfalls, the crop varies extremely, some reporting 150 per cent of last year and others not over half. New Jersey is about normal and Pennsylvania reports at least normal conditions.

In the north Atlantic states comprising Maryland, West Virginia, Virginia and North Carolina, the crop so far has been a little better than 1933. As we get further south, the crop becomes shorter. North Georgia has had satisfactory yields but south Georgia and Florida are below a year ago.

Ohio, Indiana and Illinois and eastern Iowa as well as Michigan and Wisconsin all report less than at the same date a year ago.

In northern Michigan, Wisconsin and northern Minnesota and North Dakota, of course, the early crop has been blighted by the dry weather so that there has not been as much harvested so far as was harvested a year ago. The same conditions exist throughout all of the plains area and in western Iowa.

Texas and Oklahoma have not over 50 per cent of a year ago and Louisiana about 75 per cent. The southeastern states of Alabama, Tennessee, Mississippi and Kentucky report considerably less honey than a year ago up to this date. The state of New Mexico seems about normal and Arizona much below.

In the intermountain states is where the extreme disappointment comes. Prospects earlier seemed to be very good but throughout the whole area the drought has cut in terrifically on the honey crop so that in many instances there not only has been no honey harvested to this date but there has been such an extreme shortage that bees are starving or having to be fed heavily to keep them from starving.

Washington and Oregon have not had the crop that was indicated a month ago. Northern California although it is far better than the southern extremity is not up to normal.

In southern California conditions have been extremely unfavorable with not over 30 per cent of last year's crop which in itself was a short crop.

In Canada, the crop is just about beginning so there is no measure of comparison with a year ago except that perhaps in Ontario the conditions are at least the equal of 1933.

Prospects

Prospects throughout the New England states and in New York where there are bees to gather it seem to be 100 per cent. The same applies to New Jersey and the north Atlantic states. Pennsylvania also is well favored.

In Georgia and Florida the conditions do not seem to be favorable for over 50 per cent and this would also extend into the states of Alabama and Mississippi with Kentucky and Tennessee extremely dry and not expecting much of a crop from now on. In Louisiana perhaps a normal crop will be harvested but in Texas, prospects are poor owing to the drought in many sections and it does not look like over 50 per cent from now on. New

Mexico apparently is about normal with Arizona dry and similarly is California.

In the central states, conditions are extremely spotted. In other sections, the rain has not hit and there is nothing. A strange thing is that alfalfa is yielding readily in the favored sections. To pass fields of alfalfa they are pungent with a sweet odor. Bees are working heavily. Apparently this is due to the climatic conditions this year. In spite of the favorable conditions in some sections, it is not likely that the total crop for this whole area, however, will be over 50 per cent to 75 per cent of last year of that much. Michigan, Wisconsin and Minnesota as well have improved very greatly since our last report owing to heavy rains in most sections. Nebraska may get up to 75 per cent of last year's crop but Kansas is due to almost a failure owing to the drought.

It is in the intermountain section, that the prospects look the gloomiest. Utah, Colorado, Wyoming, Nevada and extending up into Montana are extremely gloomy. Drought still continues in most sections and there is not enough irrigation water to go around either. It does not look like there could possibly be over 50 per cent of last year's crop this year in those sections.

Idaho, as reported previously in some sections, does look about normal. Montana does not owing to earlier drought which is still present in many sections. Oregon and Washington perhaps are as well favored as any of the states but hardly look for last year's crop. Northern California may be considered almost normal with southern California far below, say 25 per cent of last year's.

In the Canadian provinces, Ontario perhaps has a little better prospect than last year as has Quebec.

In Manitoba, conditions are fair although part of the South still suffers from drought. Saskatchewan and Alberta are normal and British Columbia even above normal.

Markets

As a general rule, there has not been any concerted action on the part of the beekeepers to increase their prices over last year except that comb honey is selling readily at considerably above last year's prices. This is accounted for partly by the fact that the comb honey sections of the intermountain territory are going to have very little to offer this year and the central West itself is spotted. Where beekeepers were asking \$2.75 to \$3.25 per case last year for honey, they are inclined to ask a minimum of \$3.00 and running up to \$3.75 this year.

We learn of one carload of old honey selling in the West for 5 cents per pound f.o.b. shipping station. However, this is an exception. The orange producers of California have agreed not to sell orange for less than 6 cents f.o.b. shipping point and should undoubtedly be able to get at least this price if not above.

We have summed up the suggestions as coming in from producers and all of them tend toward a higher price.

It is just a little early to make any suggestion as to just where the market is going to start but most certainly in view of the shortage of the crop we would be inclined to hold our honey for something like a 2 cent advance over last year or say a 7½ cents per pound price delivered at the larger markets. This would be a minimum, for good white honey.

Demand

The local demand in many sections has not started up on account of the heat but it is really surprising how much demand there is for comb honey particularly. We have many reports of producers who still do not have much of their crop off, being offered a price substantially above last year for the entire crop when harvested. They are inclined to hold off, however, to see what the market will do.

Are You Ready for This Season?

Have you gone over your equipment? Have you plenty supplies? Advertisers in the American Bee Journal will welcome any inquiry sent to them.

Renew Your Subscription

Write for Our Special Club Offers
AMERICAN BEE JOURNAL

Edwin H. Guertin 201 N. Wells St. Chicago

Buy and Sell All Grades Extracted Honey
References: 1st National Bank, R. G. Dun or
Bradstreet's Commercial Reports.

the BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEES AND QUEENS

CARNIOLAN and golden queens and package bees. Code prices.
C. B. Bankston, Buffalo, Texas.

ITALIAN Queens. Northern bred, for Northern conditions.
Eugene Gordon, North Platte, Nebraska.

"SHE-SUITS-ME" queens. Prices after May 31, 80c per queen; 6 for \$4.50, 12 for \$8. Linebred, three-banded stock.
Allen Latham, Norwichtown, Conn.

CAUCASIAN BEES will increase your honey production and winter better. Caucasian Queens, 1 to 9, 70c each; 10 to 24, 65c each; 25 to 49, 55c each; 50 or more, 50c each. Package bees at code prices.
P. B. Skinner Bee Co., Greenville, Ala.

SEE OUR DISPLAY AD for prices on queens. Reared by our improved system. Circular tells about it.
J. F. Diemer Company, Liberty, Mo.

PURE Italian Queens, good producers and gentle, one to nine 70 cents, ten to twenty-four 65 cents; twenty-five to forty-nine 55 cents. A. M. Kelly, Bell, Florida.

THREE-BANDED Italian Queens that produce good workers and gentle to work with at code prices.
Alamance Bee Co., Graham, N. C.

HONEY PRODUCING QUEENS—Old Three-Banded Italians, reared from the best stock, by one of America's best queen breeders of really quality queens, at CODE prices. T. W. Burleson & Son, Waxahachie, Texas.

HARDY, Northern, personally reared Italian queens. Years of selection. The same kind we use in our own yards. 35 years a breeder. Code prices. N. J. Smith, Coopersville, Mich.

GENTLEST BEES UNDER THE SUN. Thru select breeding and inbreeding I have developed the gentlest strain in the world. They are unequaled. Colonies of untested queens, about 80% can be manipulated without smoker or veil under any weather conditions. They will do wonders under migratory beekeeping and where the honeyflow is of long duration. Non-swarming. Uniformly marked. Wings clipped. Each queen \$1.00. Satisfaction guaranteed or your money refunded. Brown's Apiary, Cape May Court House, New Jersey.

QUEENS. A limited number of select Italian stock, warranted purely mated. No inbreeding permitted. 40 years experience. 75 cents each. Thos. Broderick, Moravia, N.Y.

EXTRA YELLOW ITALIAN QUEENS at lowest price permitted by code, 1 to 9, 70c each; 10 to 24, 65c each; 25 to 49, 55c each; 50 or more, 50c each. Health certificate and satisfaction. Hazel V. Bonkemeyer, Rt. No. 2, Randleman, N. C.

BASSETT'S ITALIAN QUEENS. Pure Italian three-band stock, prices 1 to 9, 70c; 10 to 24, 65c; 25 to 49, 55c; 50 or more at 50c each; 100 queens at 45c each; 250 queens at 42½c each. Four extra queens free with every 100 queens. Health certificate and safe arrival guaranteed. IXL Apiaries, C. Bassett, Prop., Sutter, Calif.

GOOD QUEENS for Summer and Fall Requeening. We are producing close to 2000 a month of the kind you can depend on for your next season's honey crop. Gentle, prolific, evenly marked Three-band Italians. Annual requeening pays, and the satisfaction of having the finest stock the country affords in your yards is worth the cost. Select young laying queens, 1 to 9, 70c each; 10 to 24, 65c each; 25 to 49, 55c each; 50 to 99, 50c each. Usual discounts for larger quantities. No disease. H. C. Short, Fitzpatrick, Ala.

GOLDEN ITALIAN QUEENS that produce good workers. Gentle to handle. At code prices, untested 70c, tested \$1.40. D. T. Gaster, Rt. No. 2, Randleman, N. C.

NORTHERN CAUCASIAN Queens' bees are gentle, queens prolific, bred right and personally reared. They winter better and produce hordes of bees that get the honey without much swarming. One grade select untested. Code prices for August. Prompt shipment. Bird's Apiaries, Odebolt, Iowa.

HONEY FOR SALE

CHOICE Michigan Clover Honey. New 60's. David Running, Filion, Michigan.

HONEY FOR SALE—Keep your customers supplied with honey. We can furnish white and light amber honey at attractive prices. Packed in 60-lb., 10-lb. or 5-lb. tins. Dadant & Sons, Hamilton, Ill.

FOR SALE—Northern white extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

FOR SALE—Well ripened clover honey, carlot or local shipments. Will be pleased to submit sample. Also new crop section comb honey, in carrier crates of four or eight cases. The Colorado Honey Producers' Association, Denver, Colorado.

WHITE clover extracted honey. Write for prices and sample.
Kalona Honey Co., Kalona, Iowa.

TUPELO HONEY; will not granulate. Shipped in any quantity.
Anthony Bros. Honey Co., Apalachicola, Fla.

NEW CROP WHITE CLOVER, both comb and extracted, ready to ship. Any amount.
F. J. Smith, Castalia, Ohio.

HONEY FOR SALE—Fine, white clover honey in 60-lb. cans. Write for prices.
A. G. Kuersten, Burlington, Iowa.

WATER WHITE CLOVER HONEY now ready. Edw. Klein, Gurnee, Ill.

FOR SALE—New crop white comb honey. \$3.50 per case of 24 sections.
H. G. Quirin, Bellevue, Ohio.

CHOICE WHITE CLOVER HONEY in 60-lb. cans. J. F. Moore, Tiffin, Ohio.

HOWDY'S HONEY—Comb by carrier and extracted in new sixties by carlot or less.
Howard Potter, Ithaca, Michigan.

FOR SALE—New crop white clover comb honey, finest ever produced.
N. B. Querin & Son, Rt. No. 4, Bellevue, O.

EXTRACTED WHITE CLOVER HONEY in 5-lb. pails and 60-lb. cans. 1-lb. sample, 20c. New crop.
F. W. Summerfield, Grand Rapids, Ohio.

HONEY AND BEESWAX WANTED

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, Calif.

WANTED—Honey from California, Oregon, Washington, Idaho beekeepers. Priced Tacoma or Puyallup. Send samples.
Sherman Whitney, Puyallup, Wash.

WANTED—HONEY and BEESWAX. Beekeepers will find it to their advantage to communicate with us. Please send samples, state quantity available and prices. CALIFORNIA HONEY COMPANY, Hamilton & Company, Agents, 108 W. Sixth Street, Los Angeles, California.

CASH PAID for dark grades of honey. Ref. Merchants Bank, Grayslake, Illinois.
C. Jankowski, Gurnee, Illinois.

MISSISSIPPI TUPELO honey wanted.
Earls Barrick, Miller, Mo.

WANTED—All grades of honey, either carlots or less. Send sample with lowest price delivered Ripon, Wisconsin.
Schultz Honey Co., Ripon, Wisconsin.

WANTED—White clover honey. Please send samples and prices CIF. Antwerp at: Mr. R. Goossens, 125 a, rue Henri Van Hamme—EVERE-Bruxelles—Belgium.

WANTED—Comb and Extracted Honey. Also beeswax. Send samples and quote prices.
John Harnack & Son, McGregor, Iowa.

FOR SALE

ROOT 4-frame hand (automatic reverse) extractor, 9½" baskets, in good condition, \$30.00. John Kneser, Hales Corners, Wis.

FOR SALE—Good standard hives and supers. Write for information.
J. A. Fridgen, Parkers Prairie, Minn.

FOR SALE—New Root 4-frame power extractor, 12" pockets, \$80.00. Terms.
W. W. Shearman, Rt. No. 3, Jamestown, N.Y.

FOR SALE—32 colonies and equipment, 10-frame. No disease. Best offer takes them.
O. Schleif, Hebron, Nebraska.

SUPPLIES

BEST QUALITY bee supplies, attractive prices, prompt shipment. Illustrated catalog on request. We take beeswax in trade for bee supplies. The Colorado Honey Producers' Association, Denver, Colo.

COMB HONEY CARTONS. Send for samples. Odd lots at low prices. Give size and quantity you can use.
A. G. Woodman Co., Grand Rapids, Mich.

PORTER BEE ESCAPES save honey, money, avoid stings; faster most efficient. Sample 15c. R. & E. C. Porter, Lewistown, Ill.

DIFFERENT, that's all. Written and published for the instruction of beekeepers. 52 pages of breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.50. Sample, 3c stamp.
The Beekeepers Item, San Antonio, Texas.

FOR SALE—Comb foundation at money saving prices. Plain, wired and thin section. Wax worked at lowest rates.
E. S. Robinson, Mayville, N. Y.

THE PINARD Nailless Queen Bee Shipping Cage. Send for Sample. Agents—Diamond Match Co., Chico, Calif.; Roy S. Weaver & Bro., Navasota, Texas. A. B. Pinard, Mfg., 810 Auzerais, San Jose, Calif.

SAVE queens. Saffin cages now 15c. Ten for \$1.00. Allen Latham, Norwichtown, Connecticut.

LET US QUOTE YOU PRICE on bee supplies and honey containers. Attractive prices for August, Hubbard Apiaries, Onsted, Mich.

MISCELLANEOUS

HONEY LABELS and printing. Catalog and samples free. Correspondence solicited. Traders Printing Company, Springfield, Mo.

LETTERHEADS, envelopes, lowest prices, quality considered. Samples, prices free. Beekeepers Printing Company, 1010 Eighth, Watertown, Wis.

BEST BEE HUNTING OUTFIT.

Will Grover, Bristol, Vermont.

WHO HAS A FALL HONEYFLOW? What will you winter my package bees for?

L. Syverud, Aberdeen, South Dakota.

PLANS FOR POULTRY HOUSES — All styles; 150 illustrations. Tells you the type to build for your particular locality. Secret of getting winter eggs, and copy of "Inland." Send 25c. Inland Poultry Journal, Spencer, Indiana.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the worlds news in both science and practice of apiculture. Specimen copy, post free, 12 cents stamps. Membership of the Club, including subscription to the paper, 10/6. The Apis Club, Brockhill, London Road, Camberley, Surrey, England.

Maybe This Is a Moth Trap

One time I had a little vinegar in the honey house and left the cover off of the container. A few days later there were at least two dozen moths in it. Since then I try to keep the jar with honey in water or vinegar to trap the moths. I am not bothered any more with them since doing this way.

Louis Rogers,
Nebraska.

[Something like this may work since moths and other insects as well are attracted by a sweet liquid. Of course moths present in combs as larvae will not be caught until they have developed into flying moths. Fly spray used in a tight honey house from time to time also keeps down the moths.—Ed.]

Libertie

One lesson always hard for us to learn is that however good a thing may be too much of it is bad. The following, given by Samuel Purchas more than 300 years ago from manuscripts of earlier writers that he had inherited, seems especially pertinent just now:

"Bees are patient and harmless creatures and seldome unprovoked prove injurious; but he that shall often stand before the hives in the heat of the day, when they returne home with their labours, may too late repent his temeritie and fool-hardiness. Lawfull libertie used to the full is exceeding dangerous, he that will take all the libertie he may will sometimes take that he may not. . . . He that will doe all that he thinkes he may lawfully doe, if he increase in giving himself libertie, will quickly arrive at doeing things unlawfull. He that because a man may be innocently angry will never restrain his passion in a little time will be intemperate in his anger. . . . If you will be secure remove your tent, dwell further off. God hath given us more libertie than we may safely use."

W. H. Hull,
Virginia.**TRUE ITALIAN QUEENS***Honey Accepted
in Payment
for Queens***Queen Bees Our Specialty**

We are proud of our gentle bees and queens. So are our customers. Every queen a good one and guaranteed. Yard inspected and kept neat and clean. Bees for business. Large or small orders shipped promptly. We may be nearer to you. If so, we can save you time and worry. Code Prices. 1-9, 70c. 10-24, 65c. 25-49, 55c. 50-100, 50c each. Tested, \$1.40.

J.F. Diemer J. F. DIEMER COMPANY Guy Diemer
LIBERTY, MISSOURI**The Modified Dadant Hive**

A roomy, solidly built hive that will last a lifetime and make a first class home for your bees. Made of choice materials and finished to a smooth surface enabling you to apply a good coat of paint. Send for a catalog.

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**Quality Bred
Italian Bees and Queens**

We offer you unsurpassed quality, young bees, select queens, on time shipments, large quantities, full weights, light cages, safe arrival and satisfaction.

CODE PRICES**QUEENS By Mail Postpaid**

| | | | | | |
|----------|----------|----------|----------|------------|-------------|
| 1 to 9 | 10 to 24 | 25 to 49 | 50 to 99 | 100 to 249 | 250 or more |
| 70c each | 65c each | 55c each | 50c each | 45c each | 42½c each |

**TWO-POUND PACKAGES ITALIAN BEES WITH QUEENS
Express Collect**

| | | | | |
|-------------|-------------|-------------|-------------|-------------|
| 1 to 9 | 10 to 49 | 50 to 99 | 100 to 249 | 250 or more |
| \$2.15 each | \$2.05 each | \$1.95 each | \$1.75 each | \$1.65 each |

**THREE-POUND PACKAGES ITALIAN BEES WITH QUEENS
Express Collect**

| | | | | |
|-------------|-------------|-------------|-------------|-------------|
| 1 to 9 | 10 to 49 | 50 to 99 | 100 to 249 | 250 or more |
| \$2.80 each | \$2.70 each | \$2.60 each | \$2.34 each | \$2.21 each |

For queenless packages, deduct price of queens. For shipment by parcel post, add 20c per package, plus postage. For larger packages, add 80c for each additional pound of bees. Place your order now for choice of shipping dates and have your bees when wanted.

Full line of Lewis Beeware and Dadant's Foundation at Catalog Prices.

YORK BEE COMPANYThe Universal Apiaries
JESUP, GEORGIA

Mention the American Bee Journal When Writing Advertisers

The POSTSCRIPT

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

When the painter came to our house to do some work I was surprised to see that he carried a hive tool. This usual equipment for every bee man appeared to me to be very unusual for any other occupation. The painter, however, assured me that it was the handiest tool which he had since it enabled him to get into corners which are often hard to reach.

J. D. Gustin, of Springfield, Missouri, writes to take exception to my crack at the lawyers in the July postscript. He reminds me that my own legal training should have prevented me from falling into this error. My legal training never seemed to take, for I was never much of a lawyer. Gustin says that every person accused of crime is presumed to be innocent until proved to be guilty.

From his letter I quote: "Such paragraphs as the one I refer to are misleading in fact and prejudicial in effect and tend to disturb the confidence of the people in the courts. They ought to be corrected." He contends that every one brought to bar is entitled to a fair and impartial trial.

On this last point we are agreed. Certainly every man is entitled to a fair and impartial trial. What I was shooting at was the tricks of the profession which seek to avoid a fair trial and escape a just penalty.

The tendency of the time is to adopt so much red tape with the government supervising every human activity to the point where all sense of individual responsibility is lost. But we are getting away from the bee yard.

Common as are the violets in our flower gardens, one rarely sees a honeybee visiting them. The hollow spur of the lower petal forms a receptacle for the honey which is secreted by the glands on the lower anthers. This honey is most often sought by bumblebees and solitary bees. When the honeybee does chance to visit a violet it usually stands with head down while sucking the nectar. There are many flowers which yield nectar freely which are of no importance to the beekeeper. Sometimes it offers an interesting puzzle to find the reason.

A Montana reader writes about a breeding queen which lays from one to five eggs in each cell and wants to know what to do with her. Sometimes heavy queens lay more than one egg in a cell for a time when they are quite normal except for a crowded brood nest. I will be glad to hear from readers who have observed similar behavior in queens. What is the remedy?

From J. B. Douglas, of Bonita, Arizona, comes a pail of mesquite honey. Mesquite is the source of large quantities of very fine honey in the semi-arid regions of Texas, New Mexico, Arizona, Nevada and California. It is not as well known in the eastern markets as it deserves to be. The honey is a light amber color and good quality. Mesquite is a shrubby tree well suited to regions of light rainfall. It roots very deeply and can reach any moisture which may be present in the subsoil. While it yields heavily under proper conditions it is not dependable. At times as much as 200 pounds of surplus may be stored by a single colony while at other very little is harvested. In seasons when rains have occurred the mesquite blooms profusely and yields heavily. The pleasant flavor appeals to most palates.

At the same time comes a jar of vine maple honey from Joe Marty, at Silverton, Oregon. It is amber honey of rather strange, though not unpleasant flavor. Marty explains that a trace of wild pea honey mixed with that from the maple rather dominates the sample. Maple

blooms so early that few beekeepers get surplus from it either east or west. Hard maples and soft maples offer much spring forage to strong colonies in the eastern states, while the red maple provides pasture in the swamps of the South. The vine maple which is a sprawling vine-like tree is found near the coast from northern California to British Columbia.

This sample is especially interesting because Marty has found it possible to harvest surplus from maples in April if he has strong overwintered colonies in a dry situation entirely out of the wind. Colonies at 2000 feet elevation were storing surplus while those at 200 feet were in starving condition. There is still much to be learned about the particular conditions under which honey can be secured from any plant.

We are all very proud of the new house at the Pellett farm but prouder yet of the new grandson who came only a few days after it was finished. The first baby in every family is always the center of admiring interest but this little fellow has a particularly large group of aunties and uncles to say nothing of two fond grandmas and two very proud granddads. Since I already had two grandchildren I am quite accustomed to being called "grandpa." Melvin will need a bit of time to become accustomed to being called "dad."

Edgar P. Reed, of Bethany, Missouri, writes to say that the bees are storing honey from alfalfa. He wonders whether the drouth is responsible. Evidently it is, since there are reports from Missouri to New York of surplus honey from alfalfa. I have found that bees have worked alfalfa in dry seasons ever since the crop has been grown in the vicinity of my farm in western Iowa. Reports generally indicate that but little honey will be secured this year in the Middle West except what comes from alfalfa and sweet clover.

And now comes "Honey-Milk Candy" a new product developed by the dairy department of Iowa State College at Ames. With honey jelly and honey ice cream and the many other new desserts the outlets for honey are rapidly growing.

Letters coming from beekeepers within reach of soy beans indicate that the bees work them freely for pollen at times but that little honey is gathered from this source. Apparently some varieties are much more attractive than others. It is to be hoped that every beekeeper who can add something to our knowledge of this subject will do so.

I have been so severely punished for my opinions on bee disease in the past that I hesitate to raise the question again. However, I am convinced that the losses to the industry will continue until we find a new approach. It would seem that there is no good reason why foulbrood cannot be conquered as numerous other animal and plant diseases have been. Nothing will be accomplished, however, until we try.

In a recent issue the danger to bees from poison spread for grasshoppers was mentioned in this department. Now comes word from the West to the effect that in some localities many bees have been killed in this manner.

With rising prices the bee man who gets a crop this year will be in luck. The amount of interest manifested in the articles on comb honey indicates that there may be a revival of interest in the production of a fancy article of section honey. There is nothing to take its place in the fancy trade.

FRANK C. PELLETT.